

**RAILTEL CORPORATION OF INDIA LIMITED**

**(A Govt. of India Undertaking)**

**Expression of Interest for Selection of Partner from Empaneled Business Associate for,**

**MP Police Intelligence, Bhopal**

**Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025**

**For**

**“CCTV Surveillance System for Raj Bhawan Bhopal”**

**EOI No: RCIL/WR/BPL/MKTG/RAJBHAWAN/25-26/04**

**Date: 16<sup>th</sup> Jan. 2025**

**रेलटेल**  
**RAILTEL**

## **EOI NOTICE**

**RailTel Corporation of India Ltd, Plot No. 17, 1st Floor, Raghunath Nagar, Near Shahpura  
Police station, Bhopal MP-462039**

**EOI No: RCIL/WR/BPL/MKTG/RAJBHAWAN/25-26/04**

**Date: 16<sup>th</sup> Jan. 2025**

RailTel Corporation of India Ltd., (here after referred to as “RailTel”) invites EOIs from RailTel’s Empaneled Partners for the selection of suitable partner for CCTV Surveillance System for Raj Bhawan Bhopal, Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025 and any other addendums/ corrigendum’s/ documents contained within and related to the same.

The details are as under:

|   |                                                                      |                                                     |
|---|----------------------------------------------------------------------|-----------------------------------------------------|
| 1 | Last date for submission of Technical Packet against EOIs by bidders | 22 <sup>th</sup> Jan 2025 16:00 hrs.                |
| 2 | Opening of Technical Bid of EOIs                                     | 22 <sup>th</sup> Jan 2025 16:30 hrs.                |
| 3 | EMD Amount                                                           | Rs. 9,00,000/- (Nine lakh)                          |
| 4 | Tender Fee/ EOI Fee (Encl. GST)                                      | Rs. 10,295/- (Ten thousand two hundred ninety-five) |

The Token EMD should be in the favor of RailTel Corporation of India Limited payable at Mumbai through online bank transfer only. Partner needs to share the online payment transfer details like UTR No, date of payment.

RailTel Bank Details: Union Bank of India, Account No. 317801010036605, IFSC Code - UBIN0531782.

Eligible Business Associates are required to direct all communications related to this Invitation for EoI document, through the following Nominated Point of Contact persons:

### **1. Level - 1**

**Contact Name:** Mr. Sonia Sahu

**Designation:** Senior Manager/ Marketing

**E-Mail Address:** [sonia.sahu@railtelindia.com](mailto:sonia.sahu@railtelindia.com)

**Mobile No:** +91- 9004444159

## **2. Level - 2**

**Contact Name:** Shri Anand Kumar

**Designation:** Joint General Manager/Marketing

**E-Mail Address:** [Anandnkn@railtelindia.com](mailto:Anandnkn@railtelindia.com)

**Mobile No:** +91- 9004444107

### **Note:**

- ❖ Empaneled partners are required to submit soft copy of technical & price packet through an e-mail at [bpltooffice@railtelindia.com](mailto:bpltooffice@railtelindia.com) duly signed by Authorized Signatories with Company seal and stamp.
- ❖ The EOI response is invited from eligible **Empaneled Partners of RailTel only. The Empaneled partner has to submit its valid empanelment Letter of Intent along with his Bid.**
- ❖ All the document must be submitted with **proper indexing** and **page no.**
- ❖ This is an **exclusive pre-RFP partnership arrangement with empaneled business associate of RailTel for participating in the end customer RFP.** Selected partner's authorized signatory has to give an undertaking they will not submit directly or indirectly their bids and techno-commercial solution/association with any other organization once selected in this EOI for pre-bid teaming arrangement (before and after submission of bid to end customer organization by RailTel). This undertaking has to be given with this EOI Response.
- ❖ Partner has to submit their response as an individual organization only. No consortium is allowed. The Bidder has to be an empaneled partner of RailTel.
- ❖ **Transfer and Sub-letting.** The Business Associate has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contractor any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.
- ❖ All Bidders to sign and stamp RailTel's EOI and its corrigendum's implying acceptance of all terms and conditions as mentioned and submit the same along with their Bids.
- ❖ Any changes made by RailTel's end customer in **Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025** of 2025-26 up to the last date of submission of the said tender by RailTel will be unquestionably & without any objection accommodated by the Bidders in their Technical & Price offer submitted against this EOI. Changes include all the technical, financial, format changes and any other changes as applicable and deemed applicable by RailTel.

## ❖ As Introduction about RailTel

RailTel Corporation of India Limited (RailTel), an ISO-9001:2000 organization is a Nav Ratna Government of India undertaking under the Ministry of Railways. The Corporation was formed in Sept 2000 with the objectives to create nationwide Broadband Telecom and Multimedia Network in all parts of the country, to modernize Train Control Operation and Safety System of Indian Railways and to contribute to realization of goals and objective of national telecom policy 1999. RailTel is a wholly owned subsidiary of Indian Railways.

RailTel has approximately 60000 kms of OFC along the protected Railway tracks. The transport network is built on high capacity DWDM and an IP/ MPLS network over it to support mission critical communication requirements of Indian Railways and other customers. RailTel has Tier-III Data Center in Gurgaon and Secunderabad hosting / collocating critical applications. RailTel is also providing Telepresence as a Service (TPaaS), where a High-Definition Video Conference facility bundled with required BW is provided as a Service.

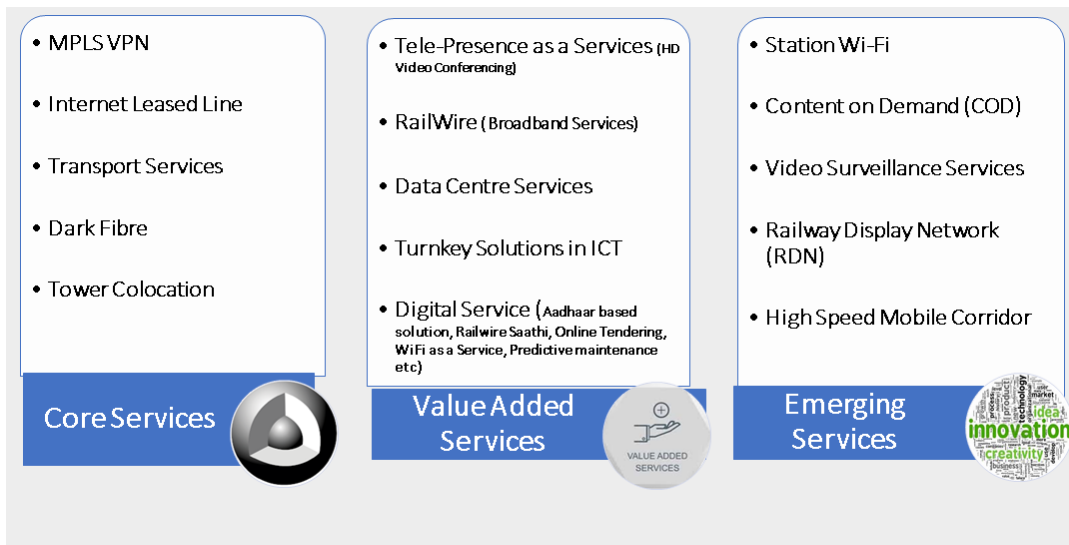
For ensuring efficient administration across India, country has been divided into four regions namely, Eastern, Northern, Southern & Western each headed by Executive Director and Headquartered at Kolkata, New Delhi, Secunderabad & Mumbai respectively. These regions are further divided into territories for efficient working. RailTel has territorial offices at Guwahati, & Bhubaneswar in East, Chandigarh, Jaipur, Lucknow in North, Chennai & Bangalore in South, Bhopal, and Pune & Ahmedabad in West. Various other territorial offices across the country are proposed to be created shortly.

RailTel's business service lines can be categorized into three heads namely B2G/B2B (Business to Government and Business to Business) and B2C (Business to customers):

### **Licenses & Service portfolio:**

Presently, RailTel holds Infrastructure Provider -1, National Long-Distance Operator, International Long-Distance Operator and Internet Service Provider (Class-A) licenses under which the following services are being offered to various customers:





## • **Carrier Services**

- National Long Distance: Carriage of Inter & Intra -circle Voice Traffic across India using State of the art NGN based network through its Interconnection with all leading Telecom Operators.
- Lease Line Services: Available for granularities from E1 to multiple of Gigabit bandwidth & above.
- Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks.
- Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's.

## • **Enterprise Services**

- Managed Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
- MPLS VPN: Layer-2 & Layer-3 VPN available for granularities from 2 Mbps & above
- Dedicated Internet Bandwidth: Experience the "Always ON" internet connectivity at your fingertips in granularities 2 Mbps to several Gbps

## • **DATA CENTER**

- Infrastructure as a service (IaaS), Hosting as Services, Security operation Centre as a Service (SOCaaS): RailTel has MeitY empaneled two Tier-III data centres in Gurgaon & Secunderabad. Presently RailTel is hosting critical applications of Indian Railways, Central & State government/ PSUs applications. RailTel will facilitate Government's applications
- Hosting services including smooth transition to secured state owned RailTel's Data Centers and Disaster Recovery Centres. RailTel also offers SOC as a Service 'SOCaaS'. In addition, RailTel offers VPN client services so that employees can seamlessly access government's intranet, applications securely from anywhere without compromising security.

## • **National Long Distance:**

Carriage of Inter & Intra -circle Voice Traffic across India using state of the art NGN based network through its Interconnection with all leading Telecom Operators.

- Lease Line Services: Available for granularities from E1 to multiple of Gigabit bandwidth & Above.
- Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks
- Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's

## • **High-Definition Video Conference:**

RailTel has unique service model of providing high -definition video conference bundled with Video Conference equipment, bandwidth and FMS services to provide end to end

seamless services on OPEX model connecting HQ with other critical offices. RailTel also offers application-based video conference solution for employees to be productive specially during this pandemic situation.

- **Retail Services – RailWire**

RailWire: Triple Play Broadband Services for the Masses. RailTel has unique model of delivering broadband services, wherein local entrepreneurs are engaged in delivering & maintaining broadband services and up to 66% of the total revenues earned are shared to these local entrepreneurs in the state, generating jobs and revitalizing local economies. On date RailTel is serving approx. 4,68,000 subscribers on PAN Indian basis. RailTel can provide broadband service across– Government PSU or any organization's officers colonies and residences.

- ❖ **Project Background and Objective of EOI**

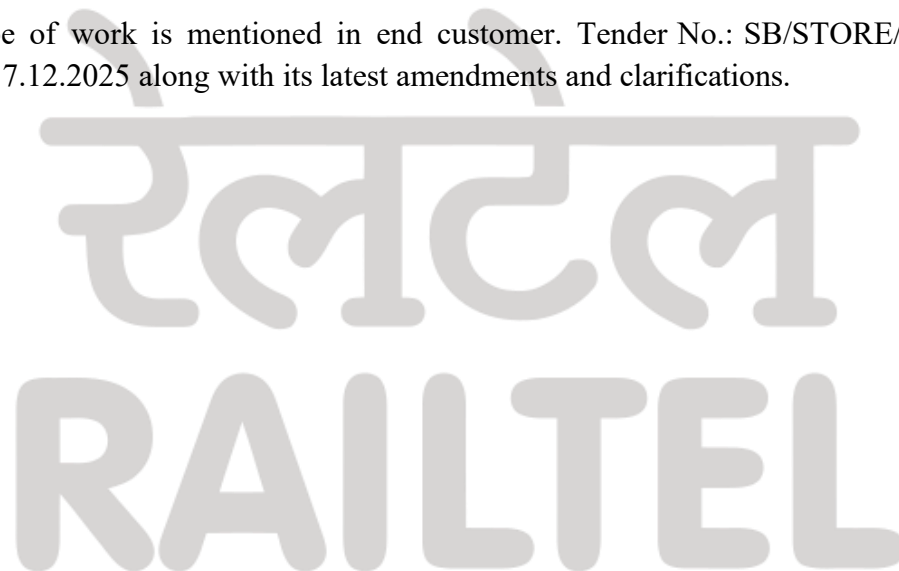
RailTel intends to participate in RFP floated by end Customer organization for CCTV Surveillance System for Raj Bhawan Bhopal, Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025.

RailTel invites EOIs from RailTel's Empaneled Partners for the selection of suitable partner for participating in above mentioned work for the agreed scope work. The empaneled partner is expected to have excellent execution capability and good understanding customer local environment.

- ❖ **Scope of Work**

The scope of work will be as mentioned in the end Customer Organization Bid for CCTV Surveillance System for Raj Bhawan Bhopal, Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025 with latest amendment/ Corrigendum/ Clarifications uploaded upto the last date of submission of the aforesaid tender.

The broad scope of work is mentioned in end customer. Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025 along with its latest amendments and clarifications.



In case of any discrepancy or ambiguity in any clause / specification pertaining to scope of work area, the tender/RFP and corrigendum/addendum released by end customer organization shall supersede and will be considered sacrosanct. (All associated clarifications, response to queries, revisions, addendum, and corrigendum, associated prime service agreement PSA/MSA/SLA also included.)

Business associate can participate as a sole bidder only. No consortium is permitted. Bidder must be RailTel's empaneled partner and will be responsible for all the conditions mentioned in this and the end customer RFP.

**Special Note: RailTel may retain some portion of the work mentioned in the end organization RFP, where RailTel has competence so that overall proposal becomes most winnable proposal.**

## ❖ **Response to EOI guidelines**

### ❖ **Language of Proposals**

The proposal and all correspondence and documents shall be written in English in soft copy through an email.

### ❖ **RailTel's Right to Accept/Reject responses**

RailTel reserves the right to accept or reject any response and annul the bidding process or even reject all responses at any time prior to selecting the partner, without thereby incurring any liability to the affected bidder or Business Associate or without any obligation to inform the affected bidder or bidders about the grounds for RailTel's action.

### ❖ **EOI response Document**

The bidder is expected to examine all instructions, forms, terms and conditions and technical specifications in the bidding documents. Submission of bids, not substantially responsive to the bidding document in every aspect will be at the bidder's risk and may result in rejection of its bid without any further reference to the bidder.

All pages of the documents shall be signed by the bidder including the closing page in token of his having studied the EOI document and should be submitted along with the bid.

### ❖ **Period of Validity of bids and Bid Currency**

Bids shall remain valid for a period of 180 days from the date of Bid submission issued by the end Customer organization for which bid is going to be submitted.

### ❖ **Bid Earnest Money (EMD)**

- The Business Associate shall furnish a sum as given in EOI Notice via online transfer from any scheduled bank in India in favor of "RailTel Corporation of India Limited" along with the offer. This will be called as EOI/Token EMD.
- Offers not accompanied with valid Token Earnest Money Deposit shall be summarily rejected.
- In case if offer is selected for bidding, the partner has to furnish Earnest Money Deposit (for balance amount as mentioned in the customer's Bid or as per

RailTel policy as applicable) for the bid to RailTel in the form of Online Transfer/BG/combination of both. The selected Business Associate shall have to submit EMD before submission of bid to end customer as applicable.

- Return of EMD for unsuccessful Business Associates: EOI EMD of the unsuccessful Business Associate shall be returned without interest after completion of EOI process.
- Return of EMD for successful Business Associate: EOI-EMD & Earnest Money Deposit (balance proportionate EMD) and Integrity Pact BG of the successful bidder will be discharged / returned as promptly as possible after the receipt of RailTel's EMD/BG from the end Customer and or on receipt of Security Deposit Performance Bank Guarantee as applicable (clause no. 4.6) from Business Associate whichever is later.
- Forfeiture of EOI EMD or EOI EMD & balance EMD (balance proportionate EMD) and or Penal action as per EMD Declaration:
- The EOI EMD will be forfeited if the Balance EMD is not paid before RailTel's bid submission in end customers Tender
- The EOI EMD & Balance EMD may be forfeited and or penal action shall be initiated if a Business Associate withdraws his offer or modifies the terms and conditions of the offer during validity period.
- In case of non-submission of SD/PBG (as per clause no. 4.6) lead to forfeiture of EOI EMD, EMD (balance proportionate EMD) if applicable and Integrity Pact and or suitable action as prescribed in the EMD Declaration shall be initiated as applicable.
- Having participated with another party/directly/through consortium apart from RailTel in RailTel's end customer Tender

❖ **Security Deposit / Performance Bank Guarantee (PBG)**

- In case the bid is successful, the PBG of requisite amount proportionate to the agreed scope of the work will have to be submitted to RailTel.
- As per work share arrangements agreed between RailTel and Business Associate the PBG will be proportionately decided and submitted by the selected Business Associate.

❖ **Last date & time for Submission of EOI response**

EOI response must be submitted to RailTel at the email address specified in the preamble not later than the specified date and time mentioned in the preamble.

❖ **Modification and/or Withdrawal of EOI response**

EOI response once submitted will be treated, as final and no modification will be permitted except with the consent of the RailTel.

No Business Associate shall be allowed to withdraw the response after the last date and time for submission.

The successful Business Associate will not be allowed to withdraw or back out from the response commitments. In case of withdrawal or back out by the successful business associate, the Earnest Money Deposit shall be forfeited, and all interests/claims of such Business Associate shall be deemed as foreclosed.

❖ **Details of Financial bid for the above referred tender**

Business Associate meeting eligibility criteria and lowest price will be selected for exclusive pre-bid arrangement for optimizing technical and commercial solution so that most winnable solution is submitted to end customer.

In case if there are Two or more Business Associate meeting eligibility criteria and quoting same price, then negotiation will be conducted within this Sole partner in the second stage for the given scope of the work and Sole bidder with overall lowest (L1) offer will be selected for exclusive pre bid arrangement for optimizing technical and commercial solution.

The final bid for the tender will be prepared jointly with the selected Business Associate so that the optimal bid can be put with a good chance of winning the Tender.

Also, it may be noted that RailTel may choose multiple BAs for final bidding depending upon the lowest offer received so that a winning bid can be put forth.

The BAs will have to encompass RailTel margin over all components of the Price in end customer Tender/RFP.

Any Changes in the end customer Tender after the last date of submission of RailTel EoI shall be unquestionably & without any objection accommodated by the BA/BAs in their Technical & Price offer submitted against this EoI.

❖ **Clarification of EOI Response**

To assist in the examination, evaluation and comparison of bids the purchaser may, at its discretion, ask the Business Associate for clarification. The response should be in writing and no change in the price or substance of the EOI response shall be sought, offered or permitted.

❖ **Period of Association/Validity of Agreement**

RailTel will enter into a pre-bid agreement with selected bidder with detailed Terms and conditions.



❖ **Eligibility Criteria for Bidding Business Partner of RailTel**

| S No      | Particulars                                                                                                                                                                                                                                                                                                                                                                                             | Criteria for Tender Package                                                                                                                                                                                                                                |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                                                                                                                                                                                                                                                                                                                                                                                         | (Mandatory Compliance & Document Submission)                                                                                                                                                                                                               |
| <b>A)</b> | <b>Financial Conditions</b>                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                            |
| i)        | The bidder should be registered under Companies Act, 1956 or Companies Act 2013 or as amended and should have at least 3 years of operations in India as on bid submission date.                                                                                                                                                                                                                        | <ol style="list-style-type: none"> <li>1. Certificate of Incorporation</li> <li>2. GST Registration &amp; TIN</li> <li>3. PAN Card</li> <li>4. ESI &amp; PF certificate with Latest filed return</li> <li>5. Valid empaneled Letter by RailTel.</li> </ol> |
| ii)       | The bidder must have an annual turnover of ₹ 2.5 Cr. in the last three financial years: 2022–23, 2023–24, 2024-25(or the latest).                                                                                                                                                                                                                                                                       | Copy of the audited Balance Sheet and Profit & Loss Statement of the company and Certificate from the Chartered Accountant for Turnover with UDIN no.                                                                                                      |
| iii)      | The bidder should also have a positive net worth as of March 31st & be profitable in each of the last 3 financial years.                                                                                                                                                                                                                                                                                | Audited balance sheet, profit & loss statement, ITR and Positive Net Worth & Profitability Certificate issued by the CA for the last three financial years. Certificate should contain UDIN no. issued by ICAI.                                            |
| iv)       | <p>Bidder should have prior experience of similar nature of work in Central or State government/state PSUs department &amp; autonomous body/similar highly reputed organization's as per the following criteria: -</p> <ul style="list-style-type: none"> <li>• One Project of 40 % estimated cost</li> <li>• Two Projects 25 % estimated cost</li> <li>• Three projects 20 % estimated cost</li> </ul> | <ul style="list-style-type: none"> <li>• Copy of work order (PO) of the same item received from any Govt Dept. shall be submitted.</li> <li>• Completion Certificate of Project.</li> </ul>                                                                |
| v)        | The Bidder should have class 1 supplier or service provider.                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Self-declaration to be submitted.</li> </ul>                                                                                                                                                                      |
| vi)       | The Bidder should not be blacklisted/debarred by any Central or State government/state PSUs in last 3 years.                                                                                                                                                                                                                                                                                            | Undertaking or declaration on company letter head.                                                                                                                                                                                                         |
| vii)      | The Bidder should have valid MAF certificates                                                                                                                                                                                                                                                                                                                                                           | MAF Certificates with compliances sheet                                                                                                                                                                                                                    |
| viii)     | The Bidder should have local office in Bhopal (MP)                                                                                                                                                                                                                                                                                                                                                      | Undertaking on company Letter head.                                                                                                                                                                                                                        |

### ❖ Bidder's Profile

The bidder shall provide the information in the below table:

| S. No. | ITEM                                                                                                                                                                                        | Details |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1.     | Full name of bidder's firm                                                                                                                                                                  |         |
| 2.     | Full address, telephone numbers, fax numbers, and email address of the primary office of the organization / main / head / corporate office                                                  |         |
| 3.     | Name, designation and full address of the Chief Executive Officer/Director of the bidder's organization as a whole, including contact numbers and email Address                             |         |
| 4.     | Full address, telephone and fax numbers, and email addresses of the office of the organization dealing with this tender                                                                     |         |
| 5.     | Name, designation and full address of the person dealing with the tender to whom all reference shall be made regarding the tender enquiry. His/her telephone, mobile, Fax and email address |         |
| 6.     | Bank Details (Bank Branch Name, IFSC Code, Account number)                                                                                                                                  |         |
| 7.     | PAN, GST, TAN Registration numbers                                                                                                                                                          |         |

### ❖ Evaluation Criteria

- The Business Associates are first evaluated on the basis of the Eligibility Criteria as per clause 5 above.
- The Business Associate qualifying the Eligibility criteria will be selected for exclusive pre- bid arrangement for optimizing technical and commercial solution so that most winnable solution is submitted to end customer.
- In case if there are two or more Sole Bidders meeting eligibility criteria then the price bids will be sought from these Sole Bidder in the second stage for the given scope of the work and Sole Bidder with overall lowest (L1) offer will be selected for exclusive pre-bid arrangement for optimizing technical and commercial solution.
- RailTel reserves the right to accept or reject the response against this EOI, without assigning any reasons. The decision of RailTel is final and binding on the participants. The RailTel evaluation committee will determine whether the proposal/ information is complete in all respects and the decision of the evaluation committee shall be final. RailTel may at its discretion assign lead factor to the Business associate as per RailTel policy for shortlisting partner against this EOI.
- All General requirements mentioned in the Technical Specifications are required to be complied. The solution proposed should be robust and scalable.

### ❖ **Withdrawal of Bids**

A Bidder wishing to withdraw its bid shall notify to RailTel by e-mail prior to the deadline prescribed for bid submission. The notice of withdrawal shall be addressed to RailTel at the address named in the Bid Data Sheet, and bear the Contract name, the <Title> and < Bid No.>, and the words “Bid Withdrawal Notice.” Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a valid submitted bid.

No bid can be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in the Bid Data Sheet. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder’s EMD.

### ❖ **Evaluation Process**

The evaluation process of the bid proposed to be adopted by RailTel is indicated in this section. The purpose of this section is to provide the Bidder an idea of the evaluation process that RailTel may adopt.

RailTel shall appoint a Bid Evaluation Committee (BEC) to scrutinize and evaluate the technical and commercial bids received. The BEC will examine the Bids to determine whether they are complete, responsive and whether the bid format conforms to the bid requirements. RailTel may waive any informality or non-conformity in a bid which does not constitute a material deviation according to RailTel.

The bid prices should not be mention in any part of the bid other than the Commercial Bid. Any attempt by a bidder to influence the bid evaluation process may result in the rejection of Bid and forfeiture of EMD.

### ❖ **Performance Bank Guarantee**

The Bidder shall at his own expense, deposit with RailTel, an unconditional and irrevocable Performance Bank Guarantee (PBG) from nationalized banks or scheduled banks excluding Co-operative banks as per the format given in this bid, payable on demand, for the due performance and fulfilment of the contract by the Bidder.

This Performance Bank Guarantee will be submitted within 25 days of the notification of award of the contract/ Letter of Acceptance (LOA) issuance whichever is earlier. If PBG is not submitted within this time frame a delayed PBG penalty will be attracted. Post 25 days and up to 50 days from date of notification of award of the contract/ Letter of Acceptance (LOA) issuance a penalty at 15% per annum interest of LOA amount will be levied as delayed PBG penalty and this penalty will be deducted from the Invoices & EMD of the Bidder. After these 50 days if PBG is not submitted then it will be assumed that the Bidder is not interested in submitting PBG and the Amount of PBG along with the delayed PBG penalty calculated will be retained from Invoices & EMD of the Bidder. Non-submission of PBG can also lead to cancellation of contract and the decision with respect to whether, to retain the PBG Amount and penalty from Invoices & EMD or cancellation of contract, will be at the sole discretion of RailTel. In the event of cancellation of contract EMD will be forfeited. If PBG is retained from Invoices & EMD then the PBG Amount only and not the penalty attracted will be paid to the Bidder in such a case post

the contract period plus three months (expected PBG validity date) are over after deducting any applicable deductions (e.g.: Poor service, etc).

This Performance Bank Guarantee will be for an amount equivalent to a particular percentage of the total contract value or as specified in RailTel's end customers tender. All charges whatsoever such as premium, commission, stamp duties etc. with respect to the Performance Bank Guarantee shall be borne by the Bidder. The Performance Bank Guarantee format can be found in this document.

The Performance Bank Guarantee may be discharged/ returned by RailTel upon being satisfied that there has been due performance of the obligations of the Bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.

In the event of the Bidder being unable to service the contract for whatever reason, RailTel would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of RailTel under the Contract in the matter, the proceeds of the PBG shall be payable to RailTel as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. RailTel shall notify the Bidder in writing of the exercise of its right to receive such compensation within 30 days, indicating the contractual obligation(s) for which the Bidder is in default.

The 30 days' notice period shall be considered as the 'Cure Period' to facilitate the Implementation Agency to cure the breach. The PBG shall be invoked only if the breach is solely attributable to the bidder and the bidder fails to rectify the breach within the 'Cure Period'.

RailTel shall also be entitled to make recoveries from the Bidder's bills, performance bank guarantee, or from any other amount due to the Bidder, the equivalent value of any payment made to the Bidder due to inadvertence, error, collusion, misconstruction or misstatement.

#### ❖ **Rights to Terminate the Process**

RailTel may terminate the bid process at any time and without assigning any reason. RailTel makes no commitments, express or implied, that this process will result in a business transaction with anyone.

This bid document does not constitute an offer by RailTel. The Bidder's participation in this process may result in RailTel selecting the Bidder to engage in further discussions and negotiations towards execution of a contract. The commencement of such negotiations does not, however, signify a commitment by RailTel to execute a contract or to continue negotiations. RailTel may terminate negotiations at any time without assigning any reason.

#### ❖ **Payment terms**

RailTel shall make payment to selected Business Associate after receiving payment from Customer for the agreed scope of work. In case of any penalty or deduction made by customer for the portion of work to be done by BA, same shall be passed on to Business Associate.

- All payments by RailTel to the Partner will be made after the receipt of payment by RailTel from end customer organization and upon submission of correct Tax Invoices as per statutory norms.
- The Payments received from end customer will be disbursed Scope wise to the selected BA.
- Payments to selected BAs will be in Arrears only

#### ❖ **SLA/Penalty/LD**

The selected bidder will be required to adhere to the SLA/Penalty/LD matrix as defined in the end Customer organization tender for his scope of work and the SLA/Penalty/LD breach penalty will be applicable proportionately on the selected bidder, as specified in the end Customer organization Tender. The SLA/Penalty/LD scoring and penalty deduction mechanism for in-scope of work area shall be followed as specified in the Tender. All associated clarifications, responses to queries, revisions, addendum and corrigendum, associated Prime Services Agreement (PSA)/ MSA/ SLA also included. Any deduction by Customer from RailTel payments on account of SLA/Penalty/LD breach which is attributable to Partner and will be passed on to the Partner proportionately based on its scope of work.

#### ❖ **Duration of the Contract Period**

The contract shall remain in force for a minimum period of 1 year from the Commercial Operation Date (COD) which will be back-to-back as per end customer tender. The effective date will be the day when the Condition Precedents are met. After 1 year, RailTel may extend the agreement as per its end customers' requirements and performance.

#### **Note:**

- Depending on RailTel's business strategy RailTel may choose to work with Partner who is most likely to support in submitting a winning bid
- All Documents and requirements like EMD, Tender Fees, PBG, Contract Agreement to be shared/executed Back-to-Back as per the end customer RFP/Tender with Bid No. Tender No.: SB/STORE/2025-25 (628) BHOPAL DT. 17.12.2025
- . In case of any discrepancy or ambiguity in any clause /specification pertaining to scope of work area, the RFP released by end customer organization shall supersede and will be considered sacrosanct. (All associated clarifications, response to queries, revisions, addendum and corrigendum, associated prime service agreement (PSA)/ MSA/ SLA also included.)
- All clauses such as cost involved, payment term, validity, lock in period, etc. will be back-to-back as per customer tender
- All required MAFs and other OEM related documents along with end customer consortium partner related documents like Integrity pact, Manpower CVs, etc. which are mandatory in RailTel's end customer tender is to be arranged by Selected Bidders before RailTel's submission of Bid in end customer tender.

## Annexure 1: COVERING LETTER

(To be submitted by sole Bidder on Letter head)

EoI Reference No: \_\_\_\_\_ Date: \_\_\_\_\_

To  
RailTel Corporation of India Ltd  
Plot No. 17, 1st Floor, Raghunath  
Nagar, Near Shahpura Police station,  
Bhopal MP-462039

Dear Sir,

**SUB:** Participation in the EoI process

Having examined the Invitation for EoI document bearing the reference number \_\_\_\_\_ Dt. \_\_\_\_\_ released by your esteemed organization, we, undersigned, hereby acknowledge the receipt of the same and offer to participate in conformity with the said Invitation for EoI document.

If our application is accepted, we undertake to abide by all the terms and conditions mentioned in the said Invitation for EoI document.

We hereby declare that all the information and supporting documents furnished as a part of our response to the said Invitation for EoI document, are true to the best of our knowledge. We understand that in case any discrepancy is found in the information submitted by us, our EoI is liable to be rejected.

We hereby Submit EMD amount of Rs. \_\_\_\_\_ issued vide \_\_\_\_\_ from Bank \_\_\_\_\_.

**Authorized Signatory Name:**

**Designation:**

**Contact No:**

**E-Mail Address:**

**Signature:**

**Seal of the Organization:**

## Annexure 2: Self-Certificate & Undertaking

(To be submitted by sole Bidder on Letter Head)

EOI Reference No: \_\_\_\_\_ Date: \_\_\_\_\_

To  
RailTel Corporation of India Ltd  
Plot No. 17, 1st Floor, Raghunath  
Nagar, Near Shahpura Police station,  
Bhopal MP-462039

Dear Sir,

**Sub:** Self Certificate for Tender, Technical, Commercial & other compliances

1. Having examined the technical specifications mentioned in this EOI & end customer tender, we hereby confirm that we meet all specification.
2. We agree to abide by all the technical, commercial & financial conditions of the end customer RFP for which EOI is submitted (except pricing, termination & risk purchase rights of the RailTel). We understand and agree that RailTel shall release the payment to selected sole partner/lead partner after the receipt of corresponding payment from end customer by RailTel. Further we understand that in case selected sole bidder fails to execute assigned portion of work, then the same shall be executed by RailTel through third party or departmentally at the risk and cost of selected sole partner bidder.
3. We agree to abide by all the technical, commercial & financial conditions of the end customer's RFP for the agreed scope of work for which this EOI is submitted.
4. We hereby agree to comply with all OEM technical & financial documentation including MAF, Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP. We are hereby enclosing the arrangement of OEMs against each of the BOQ item quoted as mentioned end customer's RFP. We also undertake to submit MAF and other documents required in the end Customer organization tender in favour of RailTel against the proposed products.
5. We hereby certify that any services, equipment and materials to be supplied are produced in eligible source country complying with OM/F. No. 6/18/2019 dated 23rd July 2020 issued by DoE, MoF.
6. We hereby undertake to work with RailTel as per end customer's RFP terms and conditions. We confirm to submit all the supporting documents constituting/ in compliance with the Criteria as required in the end customer's RFP terms and conditions like technical certificates, OEM compliance documents.
7. We understand and agree that RailTel is intending to select a sole bidder who is willing to accept all terms & conditions of end customer organization's RFP for the agreed scope of work. RailTel will strategies to retain scope of work where RailTel has competence.

8. We hereby agree to submit that in case of being selected by RailTel as sole bidder for the proposed project (for which EOI is submitted), we will submit all the forms, appendix, relevant documents etc. to RailTel that is required and desired by end Customer well before the bid submission date by end customer and as and when required.
9. We hereby undertake to sign Pre-Bid Agreement, Pre-Contract Integrity Pact and Non-Disclosure Agreement with RailTel on a non-judicial stamp paper of Rs. 500/- in the prescribed Format.
10. We undertake that we will not submit directly or indirectly out bids and techno-commercial solution/association with any other organization once selected in this EOI for pre-bid teaming arrangement (before and after submission of bid to end customer organization by RailTel)

**Authorized Signatory Name:**

**Designation:**

**Signature:**

**Seal of the Organization:**



**Annexure 3: Undertaking for not being Blacklisted/Debarred**  
**(To be submitted by sole bidder on Letter Head)**

EoI Reference No: \_\_\_\_\_ Date: \_\_\_\_\_

To  
RailTel Corporation of India Ltd  
Plot No. 17, 1st Floor, Raghunath  
Nagar, Near Shahpura Police station,  
Bhopal MP-462039

Dear Sir,

**Subject:** Undertaking for not being Blacklisted/Debarred

We, <Company Name>, having its registered office at <Address> hereby declares that that the Company has not been blacklisted/debarred by any Governmental/ Non-Governmental organization in India for past 3 Years as on bid submission date.

**Authorized Signatory Name:**

**Designation:**

**Signature:**

**Seal of the Organization:**

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#### Annexure 4: Format of Affidavit

##### **FORMAT FOR AFFIDAVIT TO BE UPLOADED BY SOLE PARTNER ALONGWITH THE EOI DOCUMENTS**

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs. 500/-. The paper has to be in the name of the BA) \*\*

I..... (Name and designation) \* appointed as the attorney/authorized signatory of the BA (including its constituents),

M/s \_\_\_\_\_ (hereinafter called the BA) for the purpose of the EOI documents for the work of \_\_\_\_\_ as per the EOI No. \_\_\_\_\_ Dt. \_\_\_\_\_ of (RailTel Corporation of India Ltd), do hereby solemnly affirm and state on the behalf of the BA including its constituents as under:

1. I/we the BA (s), am/are signing this document after carefully reading the contents.
2. I/we the BA(s) also accept all the conditions of the EOI and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the EOI documents from RailTel website [www.railtelindia.com](http://www.railtelindia.com). I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to be content of the EOI document. In case of any discrepancy noticed at any stage i.e. evaluation of EOI, execution of work or final payment of the contract, the master copy available with the RailTel Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. I/we also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/we declare that the information and documents submitted along with the EOI by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of EOI, it shall lead to forfeiture of the EOI EMD besides banning of business for five years on entire RailTel. Further, I/we (insert name of the BA) \* and all my/our constituents understand that my/our constituents understand that my/our offer shall be summarily rejected.
8. I/we also understand that if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire RailTel.

DEPONENT  
SEAL AND SIGNATURE OF THE BA

VERIFICATION

I/We above named EOI do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONENT

SEAL AND SIGNATURE OF THE ADVOCATE

**Place:**

**Dated:**

**\*\*The contents in Italics are only for guidance purpose. Details as appropriate are to be filled in suitably by BA. Attestation before Magistrate/ Notary Public.**

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## **Annexure 5: Draft Non-Disclosure Agreement**

(To be submitted on a Rs. 500 Stamp Paper)

This Non-Disclosure Agreement (“Non-Disc”) is made and entered into \_\_\_\_\_ day of \_\_\_\_\_ month \_\_\_\_\_ year (effective date) by and between \_\_\_\_\_ (“Department”) and \_\_\_\_\_ (“Company”). Whereas, Department and Company have entered into an Agreement (“Agreement”) \_\_\_\_\_ effective \_\_\_\_\_ for \_\_\_\_\_ and

Whereas, each party desires to disclose to the other party certain information in oral or written form which is proprietary and confidential to the disclosing party, (“CONFIDENTIAL INFORMATION”).

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements contained herein, the parties agree as follows:

### **1. Definitions. As used herein:**

- a. The term “Confidential Information” shall include, without limitation, all information and materials, furnished by either Party to the other in connection with citizen/users/persons/customers data, products and/or services, including information transmitted in writing, orally, visually, (e.g. video terminal display) or on magnetic or optical media, and including all proprietary information, customer and prospect lists, trade secrets, trade names or proposed trade names, methods and procedures of operation, commercial or marketing plans, licensed document know-how, ideas, concepts, designs, drawings, flow charts, diagrams, quality manuals, checklists, guidelines, processes, formulae, source code materials, specifications, programs, software packages, codes and other intellectual property relating to the disclosing party’s data, computer database, products and/or services. Results of any tests, sample surveys, analytics, data mining exercises or usages etc. carried out by the receiving party in connection with the Department’s information including citizen/users/persons/customers personal or sensitive personal information as defined under any law for the time being in force shall also be considered Confidential Information.
- b. The term, “Department” shall include the officers, employees, agents, consultants, contractors and representatives of Department.
- c. The term, “Company” shall include the directors, officers, employees, agents, consultants, contractors and representatives of Company, including its applicable affiliates and subsidiary companies.

### **2. Protection of Confidential Information:** With respect to any Confidential Information disclosed to it or to which it has access, Company affirms that it shall:

- a. Use the Confidential Information as necessary only in connection with Project and in accordance with the terms and conditions contained herein;

- b. Maintain the Confidential Information in strict confidence and take all reasonable steps to enforce the confidentiality obligations imposed hereunder, but in no event take less care with the Confidential Information than the parties take to protect the confidentiality of its own proprietary and confidential information and that of its clients;
  - c. Not to make or retain copy of any commercial or marketing plans, citizen/users/persons/customers database, Bids developed by or originating from Department or any of the prospective clients of Department except as necessary, under prior written intimation from Department, in connection with the Project, and ensure that any such copy is immediately returned to Department even without express demand from Department to do so;
  - d. Not disclose or in any way assist or permit the disclosure of any Confidential Information to any other person or entity without the express written consent of the other party; and
  - e. Return to the other party, or destroy, at Department's discretion, any and all Confidential Information disclosed in a printed form or other permanent record, or in any other tangible form (including without limitation, all copies, notes, extracts, analyses, studies, summaries, records and reproductions thereof) immediately upon the earlier to occur of (i) expiration or termination of either party's engagement in the Project, or (ii) the request of the other party therefore.
  - f. Not to discuss with any member of public, media, press, any or any other person about the nature of arrangement entered between Department and Company or the nature of services to be provided by the Company to the Department.
3. **Onus.** Company shall have the burden of proving that any disclosure or use inconsistent with the terms and conditions hereof falls within any of the foregoing exceptions.
4. **Exceptions.** These restrictions as enumerated in section 1 of this Agreement shall not apply to any Confidential Information:
- a. Which is independently developed by Company or lawfully received from another source free of restriction and without breach of this Agreement; or
  - b. After it has become generally available to the public without breach of this Agreement by Company; or
  - c. Which at the time of disclosure to Company was known to such party free of restriction and evidenced by documentation in such party's possession; or
  - d. Which Department agrees in writing is free of such restrictions.
  - e. Which is received from a third party not subject to the obligation of confidentiality with respect to such Information;

- 5. Remedies.** Company acknowledges that
- (a) any actual or threatened disclosure or use of the Confidential Information by Company would be a breach of this agreement and may cause immediate and irreparable harm to Department;
  - (b) Company affirms that damages from such disclosure or use by it may be impossible to measure accurately; and
  - (c) injury sustained by Department may be impossible to calculate and remedy fully.
- Therefore, Company acknowledges that in the event of such a breach, Department shall be entitled to specific performance by Company of Company's obligations contained in this Agreement. In addition, Company shall indemnify Department of the actual and liquidated damages which may be demanded by Department. Moreover, Department shall be entitled to recover all costs (including reasonable attorneys' fees) which it or they may incur in connection with defending its interests and enforcement of legal rights arising due to a breach of this agreement by Company.
- 6. Need to Know.** Company shall restrict disclosure of such Confidential Information to its employees and/or consultants with a need to know (and advise such employees of the obligations assumed herein), shall use the Confidential Information only for the purposes set forth in the Agreement, and shall not disclose such Confidential Information to any affiliates, subsidiaries, associates and/or third party without prior written approval of the disclosing party.
- 7. Intellectual Property Rights Protection.** No license to a party, under any trademark, patent, copyright, design right, mask work protection right, or any other intellectual property right is either granted or implied by the conveying of Confidential Information to such party.
- 8. No Conflict.** The parties represent and warrant that the performance of its obligations hereunder does not and shall not conflict with any other agreement or obligation of the respective parties to which they are a party or by which the respective parties are bound.
- 9. Authority.** The parties represent and warrant that they have all necessary authority and power to enter into this Agreement and perform their obligations hereunder.
- 10. Dispute Resolution.** If any difference or dispute arises between the Department and the Company in connection with the validity, interpretation, implementation or alleged breach of any provision of this Agreement, any such dispute shall be referred appropriately to RailTel/ stakeholders/ partners/ patrons
- a. The arbitration proceedings shall be conducted in accordance with the (Indian) Arbitration and Conciliation Act, 1996 and amendments thereof.
  - b. The place of arbitration shall be Mumbai.
  - c. The arbitrator's award shall be substantiated in writing and binding on the parties.
  - d. The proceedings of arbitration shall be conducted in English language.
  - e. The arbitration proceedings shall be completed within a period of 180 days from the date of reference of the dispute to arbitration.
- 11. Governing Law.** This Agreement shall be interpreted in accordance with and governed by

the substantive and procedural laws of India and the parties hereby consent to the exclusive jurisdiction of Courts and/or Forums situated at Mumbai, India only.

- 12. Entire Agreement.** This Agreement constitutes the entire understanding and agreement of the parties, and supersedes all previous or contemporaneous agreement or communications, both oral and written, representations and under standings among the parties with respect to the subject matter hereof.
- 13. Amendments.** No amendment, modification and/or discharge of this Agreement shall be valid or binding on the parties unless made in writing and signed on behalf of each of the parties by their respective duly authorized officers or representatives.
- 14. Binding Agreement.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.
- 15. Severability.** It is the intent of the parties that in case any one or more of the provisions contained in this Agreement shall be held to be invalid or unenforceable in any respect, such provision shall be modified to the extent necessary to render it, as modified, valid and enforceable under applicable laws, and such invalidity or unenforceability shall not affect the other provisions of this Agreement.
- 16. Waiver.** If either party should waive any breach of any provision of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision hereof.
- 17. Survival.** Both parties agree that all of their obligations undertaken herein with respect to Confidential Information received pursuant to this Agreement shall survive till perpetuity even after any expiration or termination of this Agreement.
- 18. Non-solicitation.** During the term of this Agreement and thereafter for a further period of two (2) years Company shall not solicit or attempt to solicit Department's employees and/or consultants, for the purpose of hiring/contract or to proceed to conduct operations/business similar to Department with any employee and/or consultant of the Department who has knowledge of the Confidential Information, without the prior written consent of Department. This section will survive irrespective of the fact whether there exists a commercial relationship between Company and Department.
- 19. Term.** Subject to aforesaid section 17, this Agreement shall remain valid up to \_\_\_\_years from the "effective date".

IN WITNESS HEREOF, and intending to be legally bound, the parties have executed this Agreement to make it effective from the date and year first written above.

For Department

Name:

Title:

WITNESSES:

1. \_\_\_\_\_

2. \_\_\_\_\_

For Company

Name:

Title:

WITNESSES:

1. \_\_\_\_\_

2. \_\_\_\_\_

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## **Annexure 7: Complete EoI Examination & Nil Deviation Certificate**

(To be submitted by Bidder)

To  
RailTel Corporation of India Ltd  
Plot No. 17, 1st Floor, Raghunath  
Nagar, Near Shahpura Police station,  
Bhopal MP-462039

**Sub:** Complete EoI Examination & Nil Deviation Certificate

**Ref:** EoI Number: \_\_\_\_\_ **Dated:** \_\_\_\_\_

Dear Sir,

We <Bidder Name> having completely examined the referred EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI, conclude that we have understood the Terms & Conditions of the EoI and its subsequent addendums & corrigendum (if any) and any other documents/its addendums/corrigendum referred in this EoI. We declare that we have sought all clarifications for the same from RailTel or its end customer for anything contained in this EoI & any other documents/its addendums/ corrigendum referred in this EoI and have been satisfied with the clarifications to the fullest extent and there are no terms, clauses, conditions, etc which are ambiguous.

We also declare that there is no deviation from adhering to anything that is contained in this EoI and any other documents/its addendums/corrigendum referred in this EoI and that any deviation later raised by us shall lead to forfeiture of the Bid/Contract at complete discretion of RailTel.

Signature of Authorized Signatory (with official seal)

Name :  
Designation :  
Address :  
Telephone and Fax :  
E-mail address :

### **Annexure 8: Back-to-Back Compliance Certificate**

(To be submitted by Bidder)

To  
RailTel Corporation of India Ltd  
Plot No. 17, 1st Floor, Raghunath  
Nagar, Near Shahpura Police station,  
Bhopal MP-462039

**Sub:** Complete back-to-back Compliance Certificate

**Ref:** 1) EoI Number: \_\_\_\_\_ Dated: \_\_\_\_\_  
2) Bid Reference No.: 25001-A Bid Issue Date: 09/10/2025 and all of its addendums/  
corrigendum's & published documents

Dear Sir,

Considering reference 1 & 2 we would like to declare that we have read and understood the EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI thoroughly. We would like to give you our back-to-back compliance for all the tender terms and conditions, clauses, timelines, deliverables and anything explicitly mentioned in the EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI.

Signature of Authorized Signatory (with official seal)

Name :  
Designation :  
Address :  
Telephone and Fax :  
E-mail address :

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### **Annexure 9: Performance Bank Guarantee Format**

(For a sum of percentage of the value of the contract as per RailTel's end customer RFP/tender)  
(Stamp Duty to be confirmed by RailTel in co-ordination with RailTel's Legal Department)  
(Final Draft to be confirmed by RailTel Legal before BG issuance)

To  
RailTel Corporation of India Ltd  
Plot No. 17, 1st Floor, Raghunath  
Nagar, Near Shahpura Police station,  
Bhopal MP-462039

WHEREAS:

\_\_\_\_\_ name and address of Applicant] (hereinafter called "the Applicant") and RailTel (the "Authority") have entered into an agreement (the "Agreement") for..... subject to and in accordance with the provisions of the Agreement.

(A) The Agreement requires the Applicant to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Implementation Period/ Defects Liability Period and Maintenance Period} (as defined in the Agreement) in a sum of Rs \*\*\*\*\* Cr.

(B) We, ..... Through our branch at (The "Bank") have agreed to furnish this bank guarantee (hereinafter called the "Guarantee") by way of Performance Security. NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Applicant obligations during the {Implementation period /Defects Liability Period and maintenance period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Applicant, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

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2. A letter from the Authority, under the hand of an officer not below the rank of General Manager in RailTel that the Applicant has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Applicant is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Applicant is in default shall be final and binding on the Bank, notwithstanding any difference between the Authority and the Applicant, or any dispute between them pending before any court, tribunal, arbitrators or any other Authority or body, or by the discharge of the Applicant for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Applicant and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Applicant before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/or performance of all or any of the obligations of the Applicant contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Applicant, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Applicant or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Applicant under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the guaranteed amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect on \*\*\*\*\$ unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this ..... day of ..... 20..... at ..... SIGNED, SEALED AND DELIVERED For and on behalf of the Bank by:  
(Signature) (Name) (Designation) (Code Number) (Address)

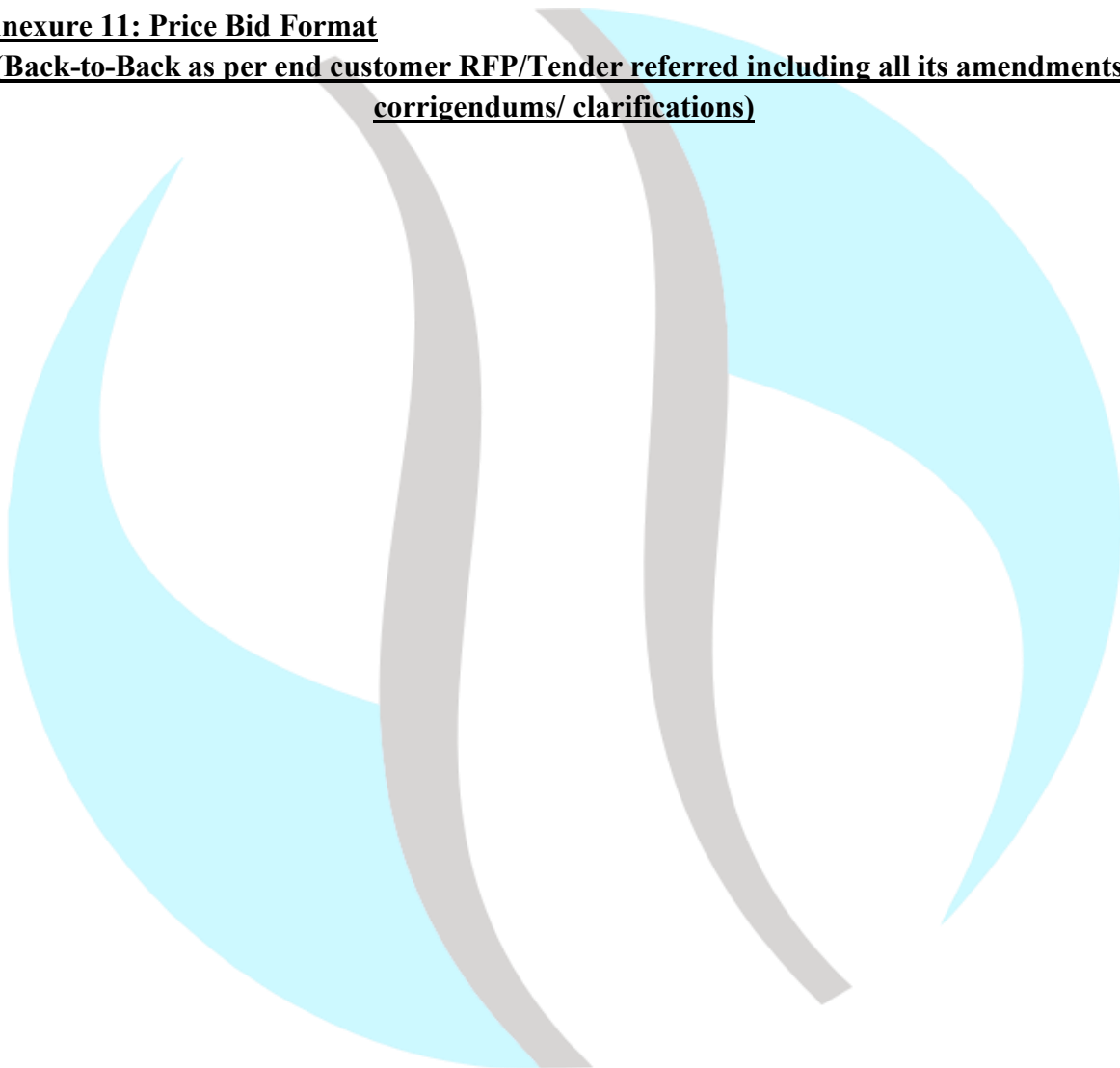
NOTES:

- a. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- b. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch

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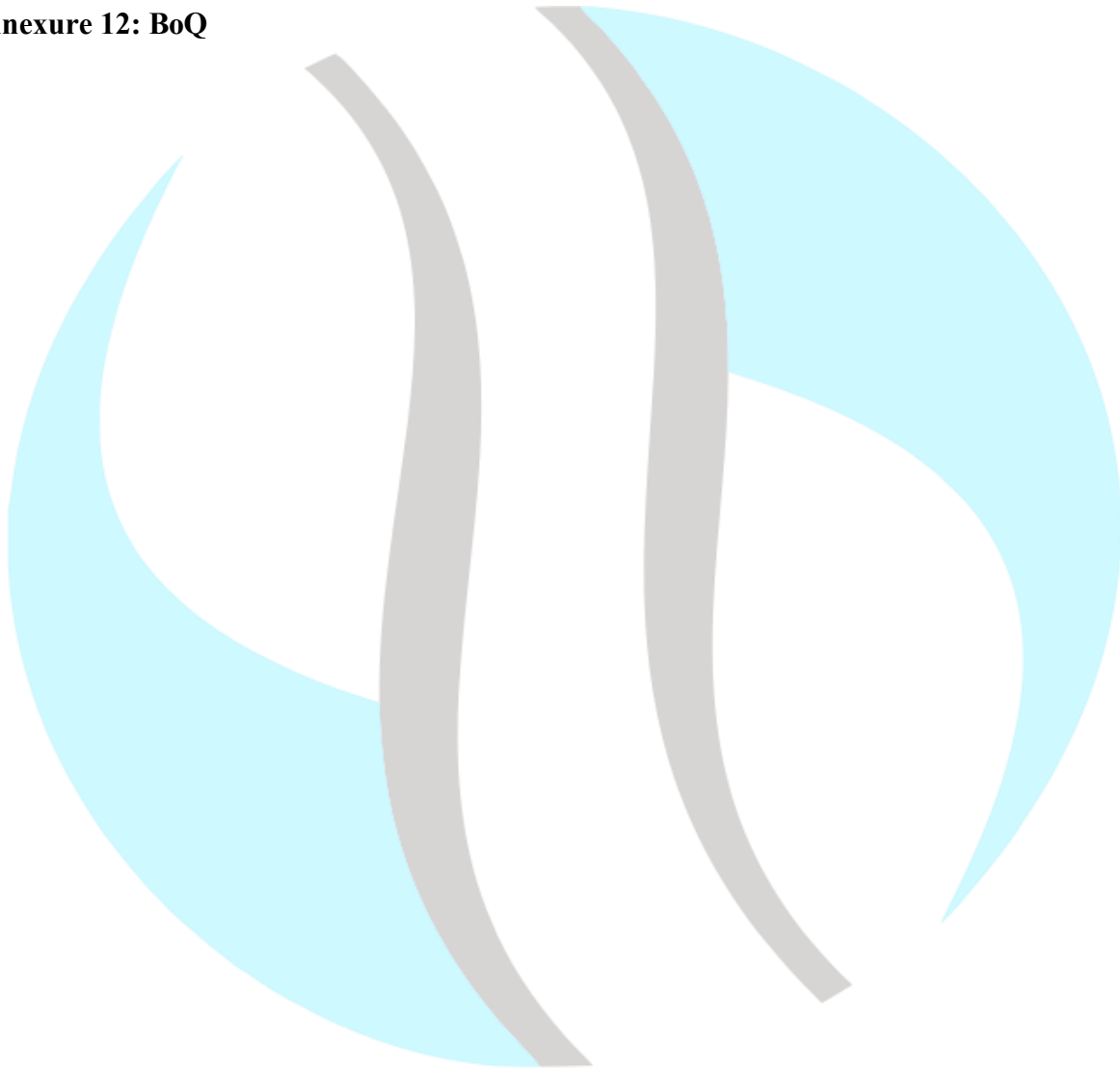
**Annexure 11: Price Bid Format**

**(Back-to-Back as per end customer RFP/Tender referred including all its amendments/  
corrigendums/ clarifications)**



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**Annexure 12: BoQ**



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**SPECIAL BRANCH  
POLICE HEADQUARTER, M.P., BHOPAL**

NO. SB / Store/2025-25 ( 628 ) Bhopal, Dated 17-12-2025

**"ONLINE E-TENDER NOTICE "**

E-tender are invited by Assistant Inspector General of Police, Special Branch (G) M.P., Bhopal on behalf of DGP MP Bhopal for the following item on website <https://mptenders.gov.in/nicgep/app>:-

| S.No. | Name of Item(s)                            | Qty. | Tender Fees<br>(Rs.)                    | EMD (Rs.)  | Tender No.             |
|-------|--------------------------------------------|------|-----------------------------------------|------------|------------------------|
|       |                                            |      | Paid Online Through<br>mptenders.gov.in |            |                        |
| 1     | CCTV Surveillance System for<br>Raj Bhawan | 01   | 10,000/-                                | 9,00,000/- | 1 <sup>st</sup> Tender |

1. Cost of tender document (Tender Fee) is non refundable and cannot be exempted in any condition & **must submit online through website** <https://mptenders.gov.in/nicgep/app>.
2. Tender document can be download from the website of MP Police ([www.mppolice.gov.in](http://www.mppolice.gov.in))
3. Bids shall be submitted online only at MP Tenders website: <https://mptenders.gov.in/nicgep/app>

**4. Tender Schedule :**

| No.  | Tender Activity                                                                                                      | Date & Time                            |
|------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| i    | E-Tender Publish Date                                                                                                | 17/12/2025 at 1700 hrs.                |
| ii   | Tender document download Start Date                                                                                  | 17/12/2025 up to 1730 hrs.             |
| iii  | Submission of written queries - through e-mail: <a href="mailto:aigg-sb@mppolice.gov.in">aigg-sb@mppolice.gov.in</a> | 23/12/2025 up to 1700 hrs.             |
| iv   | Pre Bid Meeting along with written queries                                                                           | 24/12/2025 at 1200 hrs.                |
| v    | Bid Submission Start Date                                                                                            | 25/12/2025 at 1000 hrs.                |
| vi   | Last date of online e-Tender submission                                                                              | 15/01/2026 up to 1600 hrs.             |
| vii  | Bid will be opened on                                                                                                | 16/01/2026 up to 1600 hrs.             |
| viii | Demonstration from                                                                                                   | Demo date will be announced separately |

5. Intending Bidders are advised to visit this website regularly till closing date of submission to keep themselves updated as any change/ modification in the tender will be intimated through this web site only by corrigendum /addendum/ amendment.
6. Bids will be opened as per date/time as mentioned in the Tender Critical Date Sheet. After online opening of Technical-Bid the results of their qualification as well Price-Bid opening will be intimated later.

  
**D.I.G. of Police**  
**Intelligence (G) M.P. Bhopal**  
**Tel. No. 0755- 2443654**

विशेष शाखा, पुलिस मुख्यालय  
मध्यप्रदेश भोपाल

NO. SB / Store/2025-25 ( 628 ), Bhopal,

Dated 17-12-2025

“ऑनलाईन ई-निविदा सूचना”

पुलिस महानिदेशक, मध्यप्रदेश की ओर से सहायक पुलिस महानिरीक्षक, विशेष शाखा (जी) पुलिस मुख्यालय, भोपाल द्वारा वेबसाइट <https://mptenders.gov.in/nicgep/app> पर निम्नलिखित उपकरणों के क्रय हेतु ऑनलाईन निविदा आमंत्रित की जाती है:-

| S.No. | Name of Item(s)                         | Qty. | Tender Fees (Rs.)                                                           | EMD (Rs.)  | Tender No.             |
|-------|-----------------------------------------|------|-----------------------------------------------------------------------------|------------|------------------------|
|       |                                         |      | Paid Online Through <a href="https://mptenders.gov.in">mptenders.gov.in</a> |            |                        |
| 1     | CCTV Surveillance System for Raj Bhawan | 01   | 10,000/-                                                                    | 9,00,000/- | 1 <sup>st</sup> Tender |

1. निविदा प्रपत्र ऑनलाईन वेबसाइट <https://mptenders.gov.in/nicgep/app> पर जमा किये जाएंगे।
2. निविदा शुल्क ऑनलाईन जमा करना अनिवार्य है।
3. मध्यप्रदेश पुलिस की वेबसाइट [www.mppolice.gov.in](http://www.mppolice.gov.in) से निविदा प्रपत्र एवं विस्तृत जानकारी डाउनलोड की जा सकती है।
4. निविदा समय सारणी:

| No.  | Tender Activity                                                                                                      | Date & Time                            |
|------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| i    | निविदा प्रकाशन की दिनांक                                                                                             | 17/12/2025 at 1700 hrs.                |
| ii   | निविदा प्रपत्र डाउनलोड करने की प्रारंभ दिनांक                                                                        | 17/12/2025 up to 1730 hrs.             |
| iii  | Submission of written queries - through e-mail: <a href="mailto:aigg-sb@mppolice.gov.in">aigg-sb@mppolice.gov.in</a> | 23/12/2025 up to 1700 hrs.             |
| iv   | प्री-बिड दिनांक                                                                                                      | 24/12/2025 at 1200 hrs.                |
| v    | निविदा जमा करने की प्रारंभ दिनांक                                                                                    | 25/12/2025 at 1000 hrs.                |
| vi   | निविदा जमा करने की अंतिम दिनांक                                                                                      | 15/01/2026 up to 1600 hrs.             |
| vii  | निविदा खोलने की दिनांक                                                                                               | 16/01/2026 up to 1600 hrs.             |
| viii | डिमांस्ट्रेशन दिनांक                                                                                                 | Demo date will be announced separately |

5. निविदाकर्तागण से अनुरोध है कि निविदा से संबंधित संशोधन, शुद्धि पत्र आदि वेबसाइट पर ही अपलोड किये जायेंगे अतः वेबसाइट पर अद्यतन रहें।
6. निविदा में दर्शाए दिनांक/समय पर निविदा खोली जावेगी, निविदा खोलने के उपरान्त तकनीकी निविदा में योग्य पाए गए निविदाकर्ताओं एवं वित्तीय निविदा की जानकारी वेबसाइट के माध्यम से बाद में सूचित की जावेगी।

  
उप पुलिस महानिरीक्षक,  
गुप्तवार्ता (जी) म.प्र.भोपाल  
दूरभाष कं.-0755-2443654

## **GENERAL TERMS AND CONDITIONS OF TENDER**

- 1.1. The tenderer should sign the tender form copy, of the general terms and conditions at each page and at the end in token of the acceptance of all the terms and conditions of the tender. Non availability of above tender will be treated as invalid.
- 1.2. Tender form shall be obtained on website [mptender.gov.in](http://mptender.gov.in) and [mppolice.gov.in](http://mppolice.gov.in) and used for each tender by depositing a tender fee paid by online payment through [mptender.gov.in](http://mptender.gov.in)
- 1.3. The Mandatory bid should contain Detail of Tender Fee, Earnest Money, Current Clearance GST certificates, letter of authorization from Original Equipment Manufacturer (OEM), financial status of the vendor. Technical bid should contain duly filled tender documents, technical specifications of item, pamphlet/catalogue, signed copies of general terms & conditions of the tender. Financial bid should contain price of above said Item/ Equipment etc along with relevant details pertaining to the financial aspect of the bid.
- 1.4. The Bidder should clearly mention the make and model of each quoted items.
- 1.5. The rate/unit, under any circumstances shall not be altered and shall be entered in words as well as in figures. If there is any overwriting or cancellation on the tender, it shall be supported by a full signature and seal of the tenderer.
- 1.6. The Bidder should quote the price of individual items included in all Tenders. The lowest price of each item will be decided separately.
- 1.7. The tender will remain valid for one year from the date of tender. Conditional tender will not be entertained.
- 1.8. All rates quoted in the tender must be based on free delivery in good condition, securely packed and F.O.R. destination being Stores, Special Branch, M.P. Bhopal or various units in the state. The rates should be inclusive of all taxes. In case of local suppliers, no cartage shall be paid by the Government and the delivery of goods shall have to be given at the premises of the Stores, Special Branch, M.P. Bhopal /District Units during working hours. The supplier shall be required to bear all risks of loss, leakage or damage and shall deliver the goods in good condition to the consignee at the destination mentioned in the order.
- 1.9. Tenderer should be submitted by those firms/dealers who are either Original Equipment manufacturers or suppliers/contractors for those articles/goods/items etc. who are authorized by the Original Equipment Manufacturers. Tenderer should attach authorization letter of dealership mentioning name of in original from the OEM.
- 1.10. In case of imported equipment, DGFT License should be obtained by firm within a time period of maximum 90 days from the date of purchase order. If the firm fails to obtain DGFT License within stipulated period, department will be free to cancel the purchase order.
- 1.11. In case of imported equipment, their cost and custom duty should be mentioned separately. In case of custom duty exemption from Govt. of

India, the certificate can be provided for the same by department. Tenderers must ensure that items are custom duty exempted or not as per serial no. 20(a) of specific clause of Notification No. 39/96-Cus dated 23-07-96 (under which CDEC is being sought)

- 1.12. Rates of Goods/Items must be mentioned in Indian Currency only. Department shall not be responsible for any variation in the rates of foreign currency vis-a- vis Indian currency. No correspondence in this regard will be entertained.
- 1.13. Technical bid should include information related to all the specification sought. It should also contain company brochures of all equipments/ Items applied for, and should have the relevant technical documents issued by the manufacturer in support of specification asked for.
- 1.14. Tenderer shall submit the deviation chart in relation to the specification of all Equipments/Items asked for.  
Tenderer must submit the details of compliance of specifications of proposed item along with the name and make of models quoted in tender for supplies. For this purpose, a compliance sheet indicating page numbers of specification of proposed item with categorical 'Yes' or 'No' be mentioned.
- 1.15. No certificate will be provided to import any equipments/items for demonstration purposes.
- 1.16. **Demonstration Programme:** Demonstration of the items will be held in **S.B. PHQ Bhopal** on as prescribed dates in tender time line.
- 1.17. The tenderer shall be deemed to have carefully examined the condition / specifications etc. of the goods to be supplied. If tenderer has any doubt regarding the meaning of any portion of these conditions, tenderer shall before submitting his tender / quotation, refer to the AIG (G), SB PHQ, Bhopal Madhya Pradesh at email i.d :- [aigg-sb@mppolice.gov.in](mailto:aigg-sb@mppolice.gov.in) and get clarification
- 1.18. Only the Technical Bid will be opened on the date indicated for Tender opening. Price bids of only those firms will be considered for opening whose offers are complete in all respect and fulfill the requirements as per specification. However, purchaser reserves the right to cancel, reject the tender without assigning any reminder.

## **2 Eligibility Criteria:-**

- 2.1 The prime bidder should be a firm registered in India having its office anywhere within the territory of India. Prime bidder must be an OEM (Original Equipment Manufacturer) or must be authorized by OEM to participate in bid.
- 2.2 The OEM/Bidder must have executed at least 1 Single order of 80% value of the bid or 2 orders each of 50% value of bid or 3 orders each of 40% value of the bid for required items in the last 3 Year to Govt./PSU.
- 2.3 Average annual financial turnover during last 3 year ending 31 March of the previous financial year to be at least 50% of the Estimated Project Cost.

- 2.4 Firm Should not have been black-listed by any Govt./Semi Govt. Organization or PSU. Tenderer should provide non blacklisting certificate for last THREE years. The certificate should state clearly that the proprietor (in case of Propriety firm), all directors (in case of a Company), all partners (in case of Partnership firms and also Limited Liability Partnership firms) of the present firm (which is taking part in the tender process) have not been part of any company/firm which has been blacklisted with these individuals as incumbents in office of the blacklisted firm.
- 2.5 Tenderer(s) shall submit GST Registration number certificate. along with the online tender, without which the tender may not be considered.
- 2.6 Tenderer shall have to deposit firm registration number certificate with names and addresses of proprietor/partner/Director etc. Also e-mail address of firm is to be furnished.
- 2.7 Only those Firms which are manufacturer (OEM) or first and genuine authorized distributor/dealer/ agent of the OEM are eligible to quote in the tender.
- 2.8 The authorized distributor/dealer/agents quoting on behalf of their foreign principal would be treated as Indian agent.
- 2.9 Authorized distributor / dealers/ agent should attach a certificate from the principals assuring their association for at least next 03 years from the date of tender opening, so that servicing support will be available at the authorized service center for next 3 years.

**3. Conditions Governing the Contract: -**

- 3.1 The quantities shown in the tender notice are approximate and can be increased / decreased as per the requirement. The supplies shall be made according to the requirements of the department.
- 3.2 The Director General of Police reserves the power to relax or exempt any of the conditions of the tender for the reasons recorded for granting such exemption/relaxation.
- 3.3 Procurement will process as per GOP 151/22 and Sate purchase and procurement rule-2015 as amended 2022.
- 3.4 If tenderer is in a position to quote for supply of the entire quantity in accordance with the requirements stated in the attached Appendices to the Tender, all documents attached herewith should be duly filled in, signed and submitted online.
- 3.5 Purchaser reserves the right to load part quantity on L- 2 firm, if it is established that L-1 firm does not have full capacity to supply the entire tender quantity subject to L- 2 firm matching L- 1 rate on counter offer. If L - 2 firm fails to match counter offer, the same may be made to L -3 and so on.

**4. Purchaser's Discretion: -**

- 4.1 The contract of supply can be repudiated at any time if the supplies are not made to the satisfaction of the Director General of Police, MP.

- 4.2 The Director General of Police, MP, Bhopal reserves the right to accept any tender, not necessarily the lowest tenders and reject any tender without assigning any reasons thereof. Orders can be placed for the whole or part of the quantity at the discretion of the Director General of Police, M.P., Bhopal.

**5. Earnest Money Deposited (EMD)**

- 5.1. Exemption from depositing earnest money to MSME SSI units and Start up of the State of Madhya Pradesh as per rule 14.1 of Store Purchase and Service procurement rule-2015 as amended 2022 is applicable. If firm is registered as MSME SSI units and Startup in Madhya Pradesh state as OEM of quoted product.
- 5.2 If such MSME/SSI unit quotes for such product which is not manufactured by registered firm will not be exempted from EMD submission.
- 5.3 Earnest money to be submitted online as per tender condition.
- 5.4 No adjustment of earnest money against pending bills amount will be allowed. The tenders received without earnest money or with less than prescribed earnest money will not be considered.

**6. Bidder Statement**

- 6.1 Tenderers should submit their performance statement in the enclosed Proforma attached at **Appendix- 4** of Tender Enquiry.
- 6.2 The decision on the assessment of the past performance of the bidder by the purchaser will be final. (To be modified/amended on case-to-case basis as per requirement).

**7. Two Bid System**

**Tenderers are required to submit their offers in two bid system online asunder: -**

- 7.1 **Technical Bid:-**First Cover Should Contain the Scanned Copies of self attested document in Pdf Files as follows:-
- 7.1.1 Technical bid along with its specification leaflets, brochure, if any Composition of technical bid like
- 7.1.2 All the appendices duly signed on each page by the tenderer.
- 7.1.3 Proof for payment of Tender document Cost (Tender Fee)/ Earnest Money Deposit/EMD Exemption Certificates
- 7.1.4 Certificates like Registration certificate, GST NO, PAN No etc, **Appendix-1 & 4**
- 7.1.5 The Tenderer must submit Authorization certificate (in original) from OEM, as per Technical Specification attached here with.
- 7.1.6 Tenderer should provide an Undertaking of authenticity of electronic equipment's supplies (in original) from OEM Certificate
- 7.1.7 Financial details like Proof of Annual Turnover, Net Profit.
- 7.1.8 Tender Acceptance Letter in lieu of signed copy of tender document /RFP and also Letter of authorization to submit bid, if bid is being submitted on behalf of company.
- 7.1.9 Technical specification compliance data sheet.

7.1.10 Any other relevant document which the firm wishes to submit.

## **7.2 Financial BID**

### **Second Cover Should Contain the Following: -**

- 7.2.1 Pricebid/Financial Bid to be submitted as per financial Bid **Appendix-12**
- 7.2.2 Tenderer will attach copies of Govt Notification in support of all applicable Taxes/Duties quoted in the offer (in PDF format).
- 7.2.3 The rate / unit must not under any circumstances be altered and the rates must be entered in words as well as in figures.
- 7.2.4 Price Bid will remain valid for one year from for the date of tender.

## **8. Tender Sample:-**

- 8.1 Samples of the items whose cost is more than Rs.50,000 (Rupees Fifty Thousand only) need not be submitted. Instead, Presentation/ Demonstration of these items may be mandatory at a date and place as intimated for this purpose.
- 8.2 The number of samples required for destructive testing has to be supplied by the supplier in addition to the quantity mentioned in the purchase order, at its own cost, as per the testing norms. The samples shall be picked up randomly for testing purpose.

## **9. Price Bids and Ranking of Financial Bids:**

- 9.1 The tender will be decided on the basis of total cost, (Inclusive of all taxes and any other costs) **Appendix-12**
- 9.2 Successful bidder will have to mention the basic price and tax amount separately at the time of submission of the bill
- 9.3 In Case of any tax related dispute relating to GST the decision of GST Department will be final and binding, on the bidder.
- 9.4 Statutory variation in the rate of GST, taking place between the closing date of tender and the due date of original delivery shall be to the Buyer's account. For claiming any change in price due to such Statutory variation, the seller shall have to lodge claim before the Buyer providing documentary evidence of change in rate of GST taking place after the closing day of bid submission and original due date of delivery. Buyer shall issue necessary amendment in the contract to enable generation of supplementary invoice or revised invoice as the case may be.
- 9.5 No increase in price on account of statutory increase in the rate of GST taking place during the period of delivery period extension with liquidated Damages shall be admissible. Nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in GST taking place during extended delivery period.

## **10. Correspondence Procedure & Clarifications :-**

- 10.1 Any query/ Clarification/ Representation related to this Tender will be addressed to AIG (G), SB PHQ Bhopal at his e-mail address:- aigg-sb@mppolice.gov.in (To be modified/Amended on case-to-case basis as per requirement)
- 10.2 Tenderers are requested to write full name and designation of authorized

signatory on all the correspondence to be made with the purchaser.

- 10.3 Firm should intimate any change in their Address/Telephone/Fax/e-mail immediately. The state of non-communication with firm at any stage will make the offer/contract liable for rejection and cancellation respectively.
- 10.4 In case of any contradiction noticed in Tender Enquiry the same will be, communicate to AIG(G), SB PHQ, Bhopal at his e-mail address:-aigg-sb@mppolice.gov.in

**11. Price:**

- 11.1 The per unit rates should be exclusive of all taxes but taxes (GST) should be mention Separately in the tender. All rates quoted in the tender must be based on free delivery in good condition, securely packed for different FOR destination across M.P. Specified in **Appendix- 12**
- 11.2 Tenderer should quote the base price of the quoted item and leviable taxes separately. If not mentioned separately, the quoted price shall be assumed as inclusive of all taxes.

**12. Performance Security:-**

- 12.1 Completion of tender procedure, successful bidder will be issued purchase order.
- 12.2 After the final decision of the tender, the earnest money of tenderers whose tenders have not been accepted, shall be refunded. The successful tenderer will have to submit 3% of the total cost as performance guarantee in the form of Bank Guarantee valid for two month beyond required warranty period on Stamp paper/duty of Rs. 0.25 % of total value of purchase order or maximum Rs. 25000/- according to the article 13 in the Indian Stamp act 1899.
- 12.3 The period of warranty will start from the last date of supply of goods to destinations as per FOR.
- 12.4 After receipt of Performance Security Deposit - EMD will be returned.
- 12.5 If successful tenderer applied for extensions of supply period, validity of performance Guarantee will have to be extended by such period. Failure of this will result in for forfeiture of Performance Security.
- 12.6 After satisfaction of buyer the Performance Security Guarantee will be returned after warranty period and deduction of any dues, what so ever.

**13- Dispatch Instructions and Documentation: -**

The Tenderer shall intimate the purchaser, the mode of transport and probable date of delivery of consignment by e-mail within seven (07) working days in advance.

**14- Packing & Marking: -**

- 14.1 The successful tenderer shall arrange supplies of goods in the specific terms and conditions of the supplies to destinations, with installation **within 90 days** of issue of supply order.
- 14.2 All goods / materials supplied shall be new and of best quality and as per Requirement/Specification.
- 14.3 The tenderer shall be responsible for the proper packing of the goods so as to avoid damages under normal conditions of transport by sea, rail,

road or air and for delivery of the material in good conditions to the consignee at destination. In the event of any loss, damage, breakage, leakage or any shortage tenderer shall be liable to make good of such loss and shortage found at the time of checking/inspection of the materials by the consignee, No extra cost on such account shall be admissible to him.

**15 Pre-Delivery-Inspection:**

- 15.1 The Director General of Police, MP Bhopal or his duly authorized representative shall have reasonable time access to the suppliers premises and shall have the power at all reasonable time to inspect and examine the materials and workmanship of goods.
- 15.2 The tenderer shall invariably furnish complete address of the premises of his office, godown and workshop, together with full name and address of the person who is to be contacted, for the purpose where inspection can be held.

**16- Delivery of Stores:**

- 16.1 In case of goods other than those of the approved quality, make or size are supplied, they will be rejected and will have to be replaced within the period prescribed for the completion of the order by the supplier without extra cost. Any expenses or loss caused to suppliers as a result of rejection or replacement of supplies shall be entirely at the tenderer's cost. Any loss caused to the department or any expenses incurred by the department in this shall be recoverable from the tenderer.
- 16.2 The rejected articles must be removed by the tenderer from the FOR Destination within 15 days of the date of information of rejection. If tenderer does not remove rejected articles within 15 days of rejection, tenderer will be responsible for any loss, damage and shortage to such rejected articles. Further, a demurrage charge shall be calculated and counted similar to the penalty clauses, on the cumulative value of the goods rejected and, on a period, calculated from the date of the letter intimating the rejection of sub-standard goods supplied.
- 16.3 Failure of the supplier to collect the rejected goods within six months from the date of intimation thereof, would render such goods liable for forfeiture, and the department shall be free to dispose of such goods in the manner deemed fit by the Director General of Police, MP.
- 16.4 The supplier shall be required to bear all risks of loss, leakage or damage and shall deliver the goods in good condition to consignees at the destination mentioned in the purchase order.
- 16.5 The goods shall be delivered at the destination in perfect condition. The supplier if so desires, may insure the valuable goods against loss by theft, destruction or damage by fire, flood undue exposure to weather or otherwise. The expenditure thereon shall be borne by the supplier.
- 16.6 In the case of laboratory test of any product, the expenses will bear by the Tenderer.
- 16.7 The supplier shall bear commission charges on remittances made in settlement of their claims.

- 16.8 Neither Railway Receipt will be accepted by VPP nor will the Railway Receipt which is freight to pay be accepted.

**17. Penalty For Delay In Supply and Liquidated Damages (LD)**

- 17.1 If the supplier firm requests for extension of supply period, the purchasing branch will examine it on merit basis and after obtaining approval from purchase acceptance officer, will issue a letter for extension of supply period accordingly. The extension of the delivery period can be done by the purchasing branch on the request of the firm for a maximum of 60 days with late fee deduction only once as per the requirement. If for any special reason the extension of supply period is to be done beyond 60 days, then it will be necessary to obtain the approval of the Director General of Police on the proposal along with justification.
- 17.2 After the expiry of the stipulated delivery period, which include extension period, if any, no item shall be accepted by the department under any circumstances.
- 17.3 No late fee will be deducted on the material supplied within the prescribed period. After this, late fee will be deducted at the rate of 0.50 % percent per week from the value of the supplied material in the extended period. If the period is extended again after the approval of the Director General of Police, then late fee at the rate of 1% percent per week will be deducted from the value of the material supplied during that period. The quantum of late fee shall not exceed 10 percent of the total purchase price. Late fee collection procedure- Appendix-5 of GOP 151/22
- 17.4 If the tenderer is unable to complete the supply or fails to comply with the terms and conditions of the tender within the specified or extended period, the D.G.P , MP shall have the liberty to arrange supply either through re-tender or otherwise. The Director General of Police may give 7 days notice in writing to the approved supplier to make good the failure, neglect or contravention thereof. He may also use the earnest money / security deposit of the contractor to make good such a loss.
- 17.5 The supply period and penalty on purchase order of imported/ foreign goods will be imposed and decided based on the facts & circumstances and nature of the goods. The Director General of Police reserves the right to take the final decision.
- 17.6 As per GOP 151/22 penalty will be imposed on non-supplied goods.

**18. Payment Terms:**

- 18.1 Payments would be made only after the receipt of all the items of each phase as specified in the supply order. In cases where part supply has been made and the supply order has been cancelled because of non-performance/supply, payment would be made for the supplied items (after deducting penalty of 5% of the value of the non-supplied items).
- 18.2 Payment will be made subject to availability of budget.
- 18.3 The successful tenderer shall execute an agreement on non-judicial stamp. If the contract value is upto 50 lacs the applicable stamp value for the contract is Rs. 500/- and if the contract value is above 50 Lacs the

execution agreement stamp value may be calculated as 0.1% of the contract value or of such value as may be prescribed by the law on the subject for contract deeds in the prescribed form, within 15 days from the date he/she is informed of the acceptance of his/her tender for the due performance of the contract. In case of failure of the execution of agreement within the specified period, the order shall be liable to be cancelled. The expenses on completion and stamping the agreement shall be borne by the supplier who shall furnish free of charge one copy of the agreement duly executed and stamped to the AIG (G) SB PHQ Bhopal, M.P., the other copy should be without non judicial stamp.

- 18.4 Any technical issue related to system should be attended within three working day of complaint and equipment should be ready for operation within maximum one week.

**19. Option Clause:**

- 19.1 Direct or indirect canvassing on the part of entrepreneur or their representatives will disqualify their tenders.
- 19.2 Tenderer shall not assign or sublet his contract or any part thereof to any other agency

**19.2 Guarantee/Warranty:**

- 19.2.1 Onsite OEM warranty for the period for Item/Equipment is as per specification
- 19.2.2 Any Technical issue related to system should be attended within 3 Working Day of complaint and equipment should be ready for operation within maximum one week.
- 19.2.3 In case of any defect of the Supplied material during the warranty period, it will be necessary to repair within a maximum of one week, otherwise performance guarantee will be deducted by charging penalty of 0.25% of the equipment basic price per day.

**20. Fall Clause:-**Fall clause will be applicable as under: -

The price charged for the stores supplied under the contract by the contractor shall in no event exceed the lowest price at which the contractor sells the subject store or offer to sell store of identical description to any persons/organization during the currency of this contract with applicable warranty clause.

**21. Right To Rejection:**

- 21.1 If the supplier firm fails to supply goods within stipulated delivery period, the purchase/supply order may be cancelled and the security deposit shall be forfeited by the department. In addition, the supplier firm shall be blacklisted for a definite period to be decided by the department, during which no supply order would be given to the blacklisted firm by the police department.
- 21.2 Upon breach of any of the General Terms and Conditions of contract and breach of the agreement by the supplier it will be lawful for the department to forfeit the Earnest money/ Security Deposit in whole or part, or impose such penalty as deemed fit and recover the same from the

Security Deposit or from any other payment to be made to the supplier or in any other manner as the deemed fit by the department, but without prejudice to right of the department to recover any further sum of money as damages from the supplier.

**22. Risk Purchase clause:**

In the event of failure of the supplier to deliver or dispatch the stores or provide the required services within the stipulated date/period of the supply order/ Purchas order, or in the event of breach of any of the terms and conditions of the supply order, the purchaser will have the right to purchase the subject store from elsewhere at the risk and cost of the defaulting supplier after giving a notice to the defaulting supplier. The cost as per Risk Purchase exercise may be recovered from the bill pending with the supplier even against any other supplies outside this contract or even from the pending bills with any other Police Units of Madhya Pradesh.

**23. Force Majeure Clause :-**

If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed or becomes impossible or unlawful by reason of any war, hostility, acts of public enmity, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts or act of God (hereinafter referred to "events") provided, notice of the happening of any such event is given by either party to the other within 21 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Purchaser as to whether the deliveries have been so resumed or not, shall be final and conclusive, provided further that if the performance in whole or part or any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may at its option terminate the contract provided also that if the contract is terminated under this clause, the purchaser shall be at liberty to take over from the contractor at a price to be fixed by the Purchaser, which shall be final, all unused, undamaged and acceptable materials, bought out components and stores in course of manufacture in the possession of the contractor at the time of such termination or such portion thereof as the purchaser may deem fit excepting such materials, bought out components and stores as the contractor may with the concurrence of the purchaser elect to retain.

**24. Termination of Contract:**

Time shall be the essence of the contract. The Purchaser shall have the right to terminate this Contract without any notice in part or in full in any

of the following Circumstances: -

- 24.1 The delivery of the material is delayed for causes not attributable to Force Majeure after the scheduled date of delivery.
- 24.2 The Seller is declared bankrupt or becomes insolvent.
- 24.3 In case Performance Security is not furnished within 15 days from the date of issuing of Purchase order
- 24.4 If supplied stores does not pass the desired specification during inspection.

**25. Law Governing The Contract:**

In case of any dispute, the arbitration shall rest with the D.G.P. or any authority nominated by him. The decision of the Director General of Police shall be binding upon the tenderer.

**26. Effective Date Of Contract:**

The time allowed for carrying out the supply will start from the day of issue of written supply orders (Purchase Order) for supply of store in accordance with the schedule indicated in the tender documents

**27. Performance Clause:**

In case the supplier fails to abide by the terms and condition; or to maintain the required technical/operational staff / equipment; or there is change in it production/service line affecting its performance adversely, or fails to cooperate; or there is repeated non- performance or performance below specified standards (Including after sales services and maintenance services)- in all such cases the department shall blacklist the vendor firm for a specified period as deemed fit by the Competent Authority. This action shall be in addition to any monetary claim due to be realized from the vender.

**61. Grievance Resolution Clause:**

A Grievance arising directly between the Firm and the Department concerning the interpretation, application or alleged violation of the agreement shall be originated at the level of the Firm CEO/head within 14 calendar days following the circumstances giving rise to the grievance. All such grievances shall be addressed to DGP MP for their resolution.

**62. Dispute Resolution Clause:**

Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this tender/contract or the validity or the breach thereof shall be settled under Indian Laws through civil courts having seat at Bhopal, MP.

**63. Indemnification Clause:**

The participating Vendor/Firm agrees that in case of award of contract to Vendor/Firm, they shall hold harmless and indemnify the tendering Department (including its officers/incumbents) from any and all losses, liabilities, deficiencies, costs, damages and expenses, arising out of Vendor's/Firm's negligence, whether it be sole or in connect with others,

in connection with performance of the services described herein. The maximum aggregate liability of the tendering department shall not exceed the portion of the purchase price of work/product paid by the department hereunder. In no event shall the Vendor/Firm be entitled to recover consequential or punitive damages resulting from a breach or violation of this Agreement.

**APPENDICES (To be filled & submitted by tenderer)**

|             |                                                      |
|-------------|------------------------------------------------------|
| Appendix-1  | Check List                                           |
| Appendix-2  | Tender Form                                          |
| Appendix-3  | Technical Specification Compliance                   |
| Appendix-4  | Tender Application Form                              |
| Appendix-5  | Declaration                                          |
| Appendix-6  | Undertaking of Registration Numbers                  |
| Appendix-7  | Tender Form (Authority Letter from OEM)              |
| Appendix-8  | Tender Form (Commitment Letter for support from OEM) |
| Appendix-9  | Tender Form (Tender Acceptance Letter)               |
| Appendix-10 | Tender Form (Price Bid Undertaking)                  |
| Appendix-11 | Tender Form (BG Performance)                         |
| Appendix-12 | Tender Form (BOQ)                                    |

## **Instructions for Online Bid Submission:**

The bidders are required to submit soft copies of their bids electronically on the MP TENDERS Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the MP TENDERS Portal, prepare their bids in accordance with the requirements and submitting their bids online on the MP TENDERS Portal.

More information useful for submitting online bids on the MP TENDERS Portal may be obtained at: <https://mptenders.gov.in/nicgep/app>

### **REGISTRATION**

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://mptenders.gov.in/nicgep/app>) by clicking on the link **"Online bidder Enrollment"** on the MP TENDERS Portal **which is free of charge.**
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the MP TENDERS Portal.
- 4) Upon enrolment, the bidders will be required to register **their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage)** issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

### **SEARCHING FOR TENDER DOCUMENTS**

- 1) There are various search options built in the MP TENDERS Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the MP TENDERS Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the MP TENDERS Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

## **PREPARATION OF BIDS**

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

## **SUBMISSION OF BIDS**

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "Online" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated

symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 6) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 7) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 8) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### **ASSISTANCE TO BIDDERS**

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to MP TENDERS Portal in general may be directed to the 24x7 MP TENDERS Portal Helpdesk.

\*\*\*\*

**Check List****(To be submitted with First Page in Technical Bid Compulsory)****Name of Firm :****Name of Item :**

| <b>S.No.</b> | <b>Description</b>                                                | <b>Details</b> | <b>Page No.</b> |
|--------------|-------------------------------------------------------------------|----------------|-----------------|
| 1            | Tender Form                                                       |                |                 |
| 2            | EMD (Online)                                                      |                |                 |
| 3            | Tender Fee (Online)                                               |                |                 |
| 4            | Acceptance of all terms & Conditions of the Tender                |                |                 |
| 5            | Technical Bid                                                     |                |                 |
| 6            | Financial Bid                                                     |                |                 |
| 7            | Firm's Registration & Certificate Date                            |                |                 |
| 8            | GST No & Certificate (Last Financial Year)                        |                |                 |
| 9            | PAN Card & Detail                                                 |                |                 |
| 10           | Income Tax Return certificate of Last Three Year                  |                |                 |
| 11           | Turnover - Last Three Financial Year (Attach only CA Certificate) |                |                 |
| 12           | Authorization /OEM Cert. of the item                              |                |                 |
| 13           | Previous Supply order as per GTC                                  |                |                 |
| 14           | Spec. Compliance Sheet                                            |                |                 |
| 15           | Non-Blacklisting Certificate for Last 3 Years as per GTC          |                |                 |
| 16           | Under Taking for deduction TDS etc.                               |                |                 |

**Seal and signature**

**MADHYA PRADESH POLICE HEADQUARTER, BHOPAL**

Tender Notice NO.SB /Store/2025-25( ), Bhopal, Dated -12-2025

**TENDER FORM**

- (i) Tender for supply of -----  
(Mention the name of the articles for which the tender is submitted)
- (ii) Name and full address of the Firm submitting the tender.
- (iii) Address to :- The Asstt. I.G. of Police, Special Branch (G), M.P., Bhopal.
- (iv) Reference :- This is with reference to tender No. .... Date .....
- (v) Tender fee amount of Rs ..... and Earnest Money Deposit (EMD) amount of Rs. .... has been deposited vide Online Payment (UTR No..... Date ..... ) is enclosed herewith shown in the Tender notification published in various news papers and [www.mpolicen.gov.in](http://www.mpolicen.gov.in) and online website <https://mptenders.gov.in/nicgep/app>
- (vi) We agree to abide by all conditions mentioned in Tender Notice No. ....  
Specific by the Asstt. I.G. of Police, Special Branch (G), M.P., Bhopal and also the General Terms and conditions as annexed with said Tender Notice and as given in the attached sheets, all the pages of which have been signed in the margin by us in tokens of our acceptance of the terms and conditions, therein.
- (vii) Mention the name of the article and its quantity of which tender is submitted rate quoted should be in figures as well as words. Rates of the articles should be shown in financial bid only not in technical bid.
1. ....
  2. ....
  3. ....
- (viii) We further agree to deliver mentioned stores within a period of ..... days from the date of the receipt of firm order.
- (ix) We confirm the rates quoted above are valid up to One Year from the date of submission of tender.
- (x) Agreed to abide by terms and conditions laid down for NIT No.-.....dtd: -  
-2025. Yes/No
- (xi) Signed on each pages as a token of acceptance of terms & condition laid down for NIT No. F-  
/2025 Dated / /2025  
Date :  
Place:

Signature of the Proprietor/Manager  
Representative of the firm on  
behalf of the Firm giving tender

**Technical Specification Compliance****(On the Letterhead of the OEM & Firm)****(To be enclosed with Technical bid)**

- 1 Name of Item .....
- 2 Make / Model .....
- 3 Name of Manufacturing .....  
Company
- 4 Production Year of the item .....

**Statement of Technical Specification Compliance****1. CCTV Surveillance System for Raj Bhawan – 01 QTY**

| Sno       | Specification                                                                                                                                                                                                                                                                                                                    | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
| <b>A-</b> | <b>Scope of Work</b>                                                                                                                                                                                                                                                                                                             |                     |                            |                                                                     |
|           | 1. Madhya Pradesh Special Branch is in the process of provisioning of CCTV surveillance system at "Raj Bhawan Bhopal".                                                                                                                                                                                                           |                     |                            |                                                                     |
|           | 2. Madhya Pradesh Special Branch intend to select System Integrators (SIs) for Supply, Installation, Testing, Commissioning, Migration, Operations and Management of CCTV surveillance system, on premises infrastructure including On-site manpower for five years at Raj Bhawan with a definite Service Level Agreement (SLA). |                     |                            |                                                                     |
|           | 3. The selected bidder shall ensure the successful implementation of the proposed solutions as well as provide capacity building support.                                                                                                                                                                                        |                     |                            |                                                                     |
|           | 4. Any functionality not expressly stated in this document but necessary to meet the needs of the successful operations of the system shall essentially be under the scope of bidder and for that no extra charges shall be admissible.                                                                                          |                     |                            |                                                                     |
|           | 5. Bidder shall implement and deliver the systems and components which are described in this RFP.                                                                                                                                                                                                                                |                     |                            |                                                                     |
|           | <b>B- Objective</b>                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
|           | 1. VIP Security and Access Control                                                                                                                                                                                                                                                                                               |                     |                            |                                                                     |
|           | 2. Prevention of Crime                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
|           | 3. Analytics for Command and Control Centre                                                                                                                                                                                                                                                                                      |                     |                            |                                                                     |
|           | <b>C-Site Survey</b>                                                                                                                                                                                                                                                                                                             |                     |                            |                                                                     |
|           | 1. Bidders will be responsible for site survey to identify and analyse the exact situation of the site.                                                                                                                                                                                                                          |                     |                            |                                                                     |
|           | 2. Bidders should analyse the site requirement, its present status, applications hosting plan, the existing infrastructure and any other relevant details before designing the CCTV solution.                                                                                                                                    |                     |                            |                                                                     |
|           | 3. Before doing site survey permission shall be obtained from the user agency.                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
|           | <b>D- Supply &amp; Installation</b>                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
|           | Bidder shall use industry leading practices during the implementation w.r.t positioning and mounting the cameras, poles and junction boxes.                                                                                                                                                                                      |                     |                            |                                                                     |
|           | <b>Check-points that need to be adhered to by the Bidder while installing / commissioning cameras are as follows:-</b>                                                                                                                                                                                                           |                     |                            |                                                                     |
|           | 1. Ensure surveillance objective is met while positioning the camera such that the required field of view is being captured as finalized in field survey.                                                                                                                                                                        |                     |                            |                                                                     |
|           | 2. Ensure camera is protected from the on-field challenges of weather, physical damage and theft.                                                                                                                                                                                                                                |                     |                            |                                                                     |
|           | 3. Make proper adjustments to have the best possible image / video captured.                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
|           | 4. Ensure that the pole is well placed for vibration resistance adhering to the road safety norms.                                                                                                                                                                                                                               |                     |                            |                                                                     |
|           | 5. Collusion preventive barriers around the junction box & pole foundation in case it's installed in collision prone place.                                                                                                                                                                                                      |                     |                            |                                                                     |
|           | 6. Appropriate branding or colour coding (Police/Authority Branding) of poles and junction boxes, to warn mischief mongers against tampering with the equipment at the junction.                                                                                                                                                 |                     |                            |                                                                     |
|           | 7. Bidder shall arrange power supply for the proposed solution at all desired locations.                                                                                                                                                                                                                                         |                     |                            |                                                                     |
|           | 8. Bidder shall comply with lightning-protection and anti -interference measures for system structure and equipment's.                                                                                                                                                                                                           |                     |                            |                                                                     |
|           | 9. Earthing should be done for the entire power system.                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
|           | 10. Bidder shall provide the Junction Boxes, posts and cantilever to mount the field                                                                                                                                                                                                                                             |                     |                            |                                                                     |

| Sno                                                                                           | Specification                                                                                                                                                                                                                                                                                               | Compliance in value                                                                                 | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|
|                                                                                               | sensors like the cameras, active network components, controller and power backup (UPS) at all field locations, as per the specifications.                                                                                                                                                                   |                                                                                                     |                            |                                                                     |
|                                                                                               | 11. Bidder shall provide standardized cabling for all devices and subsystems.                                                                                                                                                                                                                               |                                                                                                     |                            |                                                                     |
|                                                                                               | 12. Bidder shall ensure the installation of all necessary cables and connectors between the field sensors /devices assembly, outstation junction box, for pole mounted field sensors/devices the cables shall be routed down the inside of the pole and through underground duct to the outstation cabinet. |                                                                                                     |                            |                                                                     |
|                                                                                               | 13. All cables shall be clearly labeled with indelible indications that can clearly be identified by maintenance personnel. The proposed cables shall meet the valid directives and standards.                                                                                                              |                                                                                                     |                            |                                                                     |
|                                                                                               | 14. Cabling must be carried out per relevant BIS standards. All cabling shall be documented in a cable plan by Bidder.                                                                                                                                                                                      |                                                                                                     |                            |                                                                     |
|                                                                                               | 15. The Bidder shall be responsible to provide networking solution and may assume that data rate of 5 Mbps per camera required at various locations.                                                                                                                                                        |                                                                                                     |                            |                                                                     |
|                                                                                               | 16. Bidder will be required and should do component sizing accordingly to connect all locations.                                                                                                                                                                                                            |                                                                                                     |                            |                                                                     |
|                                                                                               | 17. Surge Protection devices shall be provided for outdoor equipment like cameras, racks, switches on both side of network, power source at Field rack, switch and control room racks, Ethernet+PoE for junction equipment's and Control room equipment's.                                                  |                                                                                                     |                            |                                                                     |
|                                                                                               | <b>E-BOQ</b>                                                                                                                                                                                                                                                                                                |                                                                                                     |                            |                                                                     |
|                                                                                               | The BOQ mentioned below are indicative and minimal. Bidders will be responsible for the site survey before proposing CCTV solution. The exact quantity and requirement shall be proposed as part of the technical bid of the Bidder.                                                                        |                                                                                                     |                            |                                                                     |
| S.n                                                                                           | Item                                                                                                                                                                                                                                                                                                        | Quantity                                                                                            |                            |                                                                     |
| 1                                                                                             | 4MP IR ANPR Camera with License and Software                                                                                                                                                                                                                                                                | 10                                                                                                  |                            |                                                                     |
| 2                                                                                             | 4MP IR Bullet Outdoor Network Camera                                                                                                                                                                                                                                                                        | 261                                                                                                 |                            |                                                                     |
| 3                                                                                             | 4 MP IR PTZ Camera                                                                                                                                                                                                                                                                                          | 5                                                                                                   |                            |                                                                     |
| 4                                                                                             | Video management system                                                                                                                                                                                                                                                                                     | 1                                                                                                   |                            |                                                                     |
| 5                                                                                             | Video analytics license @ cameras (Bullet/PTZ)                                                                                                                                                                                                                                                              | 30                                                                                                  |                            |                                                                     |
| 6                                                                                             | Network switch L2 @ Control room                                                                                                                                                                                                                                                                            | 1                                                                                                   |                            |                                                                     |
| 7                                                                                             | Outdoor industrial grade 8 port accessories                                                                                                                                                                                                                                                                 | As per site requirement                                                                             |                            |                                                                     |
| 8                                                                                             | Other network switch & accessories (If required)                                                                                                                                                                                                                                                            | As per site requirement                                                                             |                            |                                                                     |
| 9                                                                                             | Computer & storage equipment & accessories                                                                                                                                                                                                                                                                  | As per site requirement                                                                             |                            |                                                                     |
| 10                                                                                            | Network equipments & Accessories                                                                                                                                                                                                                                                                            | As per site requirement                                                                             |                            |                                                                     |
| 11                                                                                            | Junction Box                                                                                                                                                                                                                                                                                                | As per site requirement                                                                             |                            |                                                                     |
| 12                                                                                            | Surge protection device                                                                                                                                                                                                                                                                                     | As per site requirement                                                                             |                            |                                                                     |
| 13                                                                                            | Outdoor armored rated cat 6 cable                                                                                                                                                                                                                                                                           | As per site requirement                                                                             |                            |                                                                     |
| 14                                                                                            | Double jacket cat 6 cable for indoor                                                                                                                                                                                                                                                                        | As per site requirement                                                                             |                            |                                                                     |
| 15                                                                                            | Optical fiber cable (If required)                                                                                                                                                                                                                                                                           | As per site requirement                                                                             |                            |                                                                     |
| 16                                                                                            | Online UPS (1 Hr. backup) for all PTZ, Dome and Bullet cameras                                                                                                                                                                                                                                              | As per site requirement                                                                             |                            |                                                                     |
| 17                                                                                            | Online UPS (1 Hr. backup) for control room (N+1) redundant.                                                                                                                                                                                                                                                 | 1                                                                                                   |                            |                                                                     |
| 18                                                                                            | Video wall/4K Monitor 43" besel less for monitoring with mounting accessories.                                                                                                                                                                                                                              | 1 Set of 86 inch Videowall/ 4 no. (4k monitor 43" Bezel less for monitor with mounting accessories) |                            |                                                                     |
| 19                                                                                            | Desktop for video wall/4K Monitor 43"                                                                                                                                                                                                                                                                       | As per site requirement                                                                             |                            |                                                                     |
| 20                                                                                            | Other software's (If required)                                                                                                                                                                                                                                                                              | As per site requirement                                                                             |                            |                                                                     |
| 21                                                                                            | Installation and civil work with poles and masts and other required accessories                                                                                                                                                                                                                             | As per site requirement                                                                             |                            |                                                                     |
| 22                                                                                            | Network rack with furniture for all equipments at control room remote locations with complete electric fitting                                                                                                                                                                                              | As per site requirement                                                                             |                            |                                                                     |
| 23                                                                                            | Air conditioner 2 ton                                                                                                                                                                                                                                                                                       | 1                                                                                                   |                            |                                                                     |
| 24                                                                                            | Network & power cables & accessories                                                                                                                                                                                                                                                                        | As per site requirement                                                                             |                            |                                                                     |
| <b>Bids should be submitted as per the Preferred OEM table for each item mentioned below-</b> |                                                                                                                                                                                                                                                                                                             |                                                                                                     |                            |                                                                     |
| S.n.                                                                                          | Component/Item                                                                                                                                                                                                                                                                                              | OEM List                                                                                            |                            |                                                                     |
| 1                                                                                             | Electrical Cables & Accessories                                                                                                                                                                                                                                                                             | Anchor, Havells, Finolex, RR Kabel, Polycab                                                         |                            |                                                                     |
| 2                                                                                             | Network Cables & Accessories                                                                                                                                                                                                                                                                                | RR Kabel ,Havells, Dlink, HPE, Dell, Netgear, Cisco                                                 |                            |                                                                     |
| 3                                                                                             | Network Equipments & Accessories like Switch etc                                                                                                                                                                                                                                                            | Belden, Cisco, Arista, Juniper, Dell, HPE                                                           |                            |                                                                     |
| 4                                                                                             | AC                                                                                                                                                                                                                                                                                                          | LG/Samsung/Voltas/ Carrier/Daikin/Bluestar/O-General                                                |                            |                                                                     |
| 5                                                                                             | Surge protection device                                                                                                                                                                                                                                                                                     | Citel, MTL, DEHN                                                                                    |                            |                                                                     |

| Sno                                                                                                                                                                                                                                                 | Specification                                |                                                                                                                                                                                   | Compliance in value | Weather Compliance Yes/ No | /Actual proposed Specification (mentioning Make & Model of the item) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|----------------------------------------------------------------------|
| 6                                                                                                                                                                                                                                                   | Storage solution                             | Dell, HPE, Cisco                                                                                                                                                                  |                     |                            |                                                                      |
| 7                                                                                                                                                                                                                                                   | Workstation                                  | HPE, Dell, Lenovo                                                                                                                                                                 |                     |                            |                                                                      |
| 8                                                                                                                                                                                                                                                   | TV                                           | LG, Samsung, Sony                                                                                                                                                                 |                     |                            |                                                                      |
| 9                                                                                                                                                                                                                                                   | Videowall                                    | Delta, Barco, LG, Samsung                                                                                                                                                         |                     |                            |                                                                      |
| <b>The OEM &amp; vendors are requested to forward information of the product (Make &amp; Model) which they can offer and also forward correct specification of there system against each parameter along with complied or not complied remarks.</b> |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| <b>F -Technical Specifications</b>                                                                                                                                                                                                                  |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| The specifications indicated below are minimal specifications and the vendor may suggest higher /better / latest specifications, so as to insure the optimal performance of the system.                                                             |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| <b>4MP IR Bullet Outdoor Network Camera/ANPR Camera</b>                                                                                                                                                                                             |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| <b>S.N</b>                                                                                                                                                                                                                                          | <b>Parameter</b>                             | <b>Specification</b>                                                                                                                                                              |                     |                            |                                                                      |
| 1                                                                                                                                                                                                                                                   | Image sensor & Resolution                    | 1/3" or better CMOS Progressive Scan & Minimum (4 MP) or better                                                                                                                   |                     |                            |                                                                      |
| 2                                                                                                                                                                                                                                                   | Electronic Shutter speed                     | 1/3 to 1 / 10,000 s or better                                                                                                                                                     |                     |                            |                                                                      |
| 3                                                                                                                                                                                                                                                   | Min illumination/ light sensitivity (Colour) | Minimum 0.5 lux (30 IRE, F 1.2) or better                                                                                                                                         |                     |                            |                                                                      |
| 4                                                                                                                                                                                                                                                   | Min illumination/ light sensitivity (B/W)    | Minimum 0.2 lux (30 IRE, F 1.2) or better                                                                                                                                         |                     |                            |                                                                      |
| 5                                                                                                                                                                                                                                                   | Wide Dynamic Range                           | Minimum 85 Db or better                                                                                                                                                           |                     |                            |                                                                      |
| 6                                                                                                                                                                                                                                                   | Backlight Compensation                       | ON/OFF                                                                                                                                                                            |                     |                            |                                                                      |
| 7                                                                                                                                                                                                                                                   | IRIS Control                                 | Automatic                                                                                                                                                                         |                     |                            |                                                                      |
| 8                                                                                                                                                                                                                                                   | Focus                                        | Autofocus                                                                                                                                                                         |                     |                            |                                                                      |
| 9                                                                                                                                                                                                                                                   | Automatic Gain Control                       | Auto / Manual                                                                                                                                                                     |                     |                            |                                                                      |
| 10                                                                                                                                                                                                                                                  | Colour, Brightness, Contrast                 | functionality Required                                                                                                                                                            |                     |                            |                                                                      |
| 11                                                                                                                                                                                                                                                  | Frame Rate                                   | 30 FPS for 4MP at H.264 Compression or better                                                                                                                                     |                     |                            |                                                                      |
| 12                                                                                                                                                                                                                                                  | Varifocal Lens Bullet                        | 2.7-13 FPS for 4MP at H.264 Compression or better                                                                                                                                 |                     |                            |                                                                      |
| 13                                                                                                                                                                                                                                                  | Varifocal Lens ANPR                          | IP 67                                                                                                                                                                             |                     |                            |                                                                      |
| <b>Video</b>                                                                                                                                                                                                                                        |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| 1                                                                                                                                                                                                                                                   | Day and Night functionality                  | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level.                                                                      |                     |                            |                                                                      |
| 2                                                                                                                                                                                                                                                   | IR illuminator                               | Illuminator may be Internal or external & visibility should be at least 25 m                                                                                                      |                     |                            |                                                                      |
| 3                                                                                                                                                                                                                                                   | Video Resolution                             | Minimum 4 MP                                                                                                                                                                      |                     |                            |                                                                      |
| 4                                                                                                                                                                                                                                                   | Video Streams                                | Individually configurable 02 video streams (H.264, MJPEG) or better                                                                                                               |                     |                            |                                                                      |
| 5                                                                                                                                                                                                                                                   | Intelligent Video                            | Motion detection, Tampering Alert                                                                                                                                                 |                     |                            |                                                                      |
| <b>Audio</b>                                                                                                                                                                                                                                        |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| 1                                                                                                                                                                                                                                                   | Audio support                                | Required                                                                                                                                                                          |                     |                            |                                                                      |
| 2                                                                                                                                                                                                                                                   | Audio Compression                            | Minimum G.711 or better                                                                                                                                                           |                     |                            |                                                                      |
| <b>Network &amp; Interface</b>                                                                                                                                                                                                                      |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| 1                                                                                                                                                                                                                                                   | Interface                                    | RJ-45 for 10/100 base-T Ethernet                                                                                                                                                  |                     |                            |                                                                      |
| 2                                                                                                                                                                                                                                                   | Upgrade                                      | Through web browser , online, firmware upgrade                                                                                                                                    |                     |                            |                                                                      |
| 3                                                                                                                                                                                                                                                   | Network Protocols support                    | IPv6, TCP/IP, HTTP, , DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols/Should meet all functional requirement of the project                                                       |                     |                            |                                                                      |
| 4                                                                                                                                                                                                                                                   | Network disconnection Alarm                  | Required                                                                                                                                                                          |                     |                            |                                                                      |
| 5                                                                                                                                                                                                                                                   | Compliance                                   | ONVIF Profile S or better                                                                                                                                                         |                     |                            |                                                                      |
| <b>Security</b>                                                                                                                                                                                                                                     |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| 1                                                                                                                                                                                                                                                   | Password Protection                          | Required                                                                                                                                                                          |                     |                            |                                                                      |
| 2                                                                                                                                                                                                                                                   | HTTPS encryption                             | Required                                                                                                                                                                          |                     |                            |                                                                      |
| 3                                                                                                                                                                                                                                                   | IEEE 802.1X                                  | Required                                                                                                                                                                          |                     |                            |                                                                      |
| <b>General</b>                                                                                                                                                                                                                                      |                                              |                                                                                                                                                                                   |                     |                            |                                                                      |
| 1                                                                                                                                                                                                                                                   | Operational temperature °C and humidity      | Should be able to withstand Bhopal weather (0 to 50 degree Celsius)                                                                                                               |                     |                            |                                                                      |
| 2                                                                                                                                                                                                                                                   | IP rating                                    | IP67                                                                                                                                                                              |                     |                            |                                                                      |
| 3                                                                                                                                                                                                                                                   | Certifications                               | UL and BIS and CE/ EN/ FCC                                                                                                                                                        |                     |                            |                                                                      |
| 4                                                                                                                                                                                                                                                   | Power                                        | PoE / PoE+ and 12VDC/24VDC/230VAC Vendor has to supply suitable power for the cameras.                                                                                            |                     |                            |                                                                      |
| 5                                                                                                                                                                                                                                                   | Local Storage/SD card                        | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. |                     |                            |                                                                      |
| 6                                                                                                                                                                                                                                                   |                                              | After the connectivity is restored these SD card based recordings shall be automatically merged with                                                                              |                     |                            |                                                                      |

| Sno                            | Specification                                |                                                                                                                                                                                   | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|--------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|                                |                                              | the server recording.                                                                                                                                                             |                     |                            |                                                                     |
| <b>4 MP IR PTZ Camera</b>      |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | Image sensor & Resolution                    | 1 / 2.8" or better CMOS Progressive Scan and 4 mega pixel                                                                                                                         |                     |                            |                                                                     |
| 2                              | Focal Length                                 | 3.5 to 94 mm or better                                                                                                                                                            |                     |                            |                                                                     |
| 3                              | Zoom                                         | 20 x Optical or better                                                                                                                                                            |                     |                            |                                                                     |
| 4                              | Electronic Shutter                           | 1/1 to 1 / 10,000 s or better                                                                                                                                                     |                     |                            |                                                                     |
| 5                              | Min illumination/ light sensitivity (Colour) | 0.5 lux (30 IRE, F 1.6) or better                                                                                                                                                 |                     |                            |                                                                     |
| 6                              | Min illumination/ light sensitivity (B/W)    | 0.2 lux (30 IRE, F 1.6) or better                                                                                                                                                 |                     |                            |                                                                     |
| 7                              | Wide Dynamic Range                           | Minimum 85 Db or better                                                                                                                                                           |                     |                            |                                                                     |
| 8                              | Backlight Compensation                       | ON/OFF                                                                                                                                                                            |                     |                            |                                                                     |
| 9                              | IRIS Control                                 | Automatic                                                                                                                                                                         |                     |                            |                                                                     |
| 10                             | Focus                                        | Autofocus                                                                                                                                                                         |                     |                            |                                                                     |
| 11                             | Automatic Gain Control                       | Auto / Manual                                                                                                                                                                     |                     |                            |                                                                     |
| 12                             | Frame Rate                                   | 30 FPS for 4MP at H.264 Compression or better                                                                                                                                     |                     |                            |                                                                     |
| <b>Video</b>                   |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | Day and Night functionality                  | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level                                                                       |                     |                            |                                                                     |
| 2                              | Video Resolution                             | 4 Mega pixel or better                                                                                                                                                            |                     |                            |                                                                     |
| 3                              | IR illuminator                               | Internal / External Illuminator & visibility should be at least 50 m: IR Illuminator should cover 360 degree area.                                                                |                     |                            |                                                                     |
| 4                              | Video Streams                                | Individually configurable 02 video streams (H.264, MJPEG);                                                                                                                        |                     |                            |                                                                     |
| 5                              | Intelligent Video                            | Motion detection, Tampering alert                                                                                                                                                 |                     |                            |                                                                     |
| 6                              | Electronic Image Stabilization               | Required                                                                                                                                                                          |                     |                            |                                                                     |
| <b>PTZ Function</b>            |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | PAN/TILT Range                               | 360° continuous pan & 90° tilt range                                                                                                                                              |                     |                            |                                                                     |
| 2                              | PAN/TILT Speed                               | 0.5° to 150°/sec for panning & 0.5° to 100°/sec for tilting & Up to 300°/s for Preset speed.                                                                                      |                     |                            |                                                                     |
| 3                              | Presets                                      | Minimum 150 Preset Points                                                                                                                                                         |                     |                            |                                                                     |
| 4                              | Preset Tour & Pattern                        | Required                                                                                                                                                                          |                     |                            |                                                                     |
| 5                              | Privacy Mask                                 | 08 Zones or better                                                                                                                                                                |                     |                            |                                                                     |
| <b>Compression</b>             |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | MJPEG                                        | Required                                                                                                                                                                          |                     |                            |                                                                     |
| 2                              | H.264                                        | Required                                                                                                                                                                          |                     |                            |                                                                     |
| <b>Audio</b>                   |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | Audio support                                | Required                                                                                                                                                                          |                     |                            |                                                                     |
| 2                              | Audio Compression                            | G.711 or better                                                                                                                                                                   |                     |                            |                                                                     |
| <b>Network &amp; Interface</b> |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | Interface                                    | RJ-45 for 10/100 base-T Ethernet                                                                                                                                                  |                     |                            |                                                                     |
| 2                              | Upgrade                                      | Through web browser, online, firmware upgrade                                                                                                                                     |                     |                            |                                                                     |
| 3                              | Network Protocols support                    | TCP/IP, HTTP, DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols                                                                                                                     |                     |                            |                                                                     |
| 4                              | Alarm Event                                  | Events / alerts send via FTP, HTTP, email, Pre-Post alarm video buffering.                                                                                                        |                     |                            |                                                                     |
| 5                              | Network disconnection Alarm                  | Required                                                                                                                                                                          |                     |                            |                                                                     |
| 6                              | Compliance                                   | ONVIF Profile S or higher                                                                                                                                                         |                     |                            |                                                                     |
| <b>Security</b>                |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | Password Protection                          | Required                                                                                                                                                                          |                     |                            |                                                                     |
| 2                              | HTTPS encryption                             | Required                                                                                                                                                                          |                     |                            |                                                                     |
| 3                              | IEEE 802.1X                                  | Required                                                                                                                                                                          |                     |                            |                                                                     |
| <b>General</b>                 |                                              |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                              | Operational temperature °C & Humidity        | Should withstand Bhopal weather (0 to 50 degree Celsius)                                                                                                                          |                     |                            |                                                                     |
| 2                              | IP rating                                    | IP67                                                                                                                                                                              |                     |                            |                                                                     |
| 3                              | Power                                        | PoE / PoE+ and 12VDC/24VDC/ 230VAC Vendor has to supply suitable power for the cameras.                                                                                           |                     |                            |                                                                     |
| 4                              | Certifications                               | UL and BIS and CE/EN/FCC                                                                                                                                                          |                     |                            |                                                                     |
|                                | Local Storage/SD card                        | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. |                     |                            |                                                                     |

| Sno        | Specification                                                                          |                                                                                                                                                                                                                                                     | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|            |                                                                                        | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording.                                                                                                                          |                     |                            |                                                                     |
| <b>1.1</b> | <b>Server</b>                                                                          |                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 1          | Processor                                                                              | 2 x Intel Xeon latest generation processors. 64-bit x86 processor fully binary compatible with 64/32-bit applications. Cores: 2 x 16-core (minimum) with a minimum clock rate of 2.4 GHz.                                                           |                     |                            |                                                                     |
| 2          | Memory                                                                                 | Minimum 64GB of the latest DDR4 memory using minimum 16GB DIMMs or higher. Advanced ECC with multi-bit error protection. The memory should have native capability of identifying and reporting the densities of the memory installed in the server. |                     |                            |                                                                     |
| 3          | HDD Controller                                                                         | 12 Gbps SAS/NVMe RAID controller supporting RAID 0, 1, 5, and 6 with a minimum of 2GB battery-backed cache.                                                                                                                                         |                     |                            |                                                                     |
| 4          | HDD                                                                                    | 2 x 1.92TB SSD hot-swappable or higher.                                                                                                                                                                                                             |                     |                            |                                                                     |
| 5          | Network Controller                                                                     | Network controller: minimum 4 x 1Gbps ports and 2 x 10/25Gbps ports with 10Gbps transceivers.                                                                                                                                                       |                     |                            |                                                                     |
| 6          | Bays                                                                                   | Minimum 8 hot-swappable drive bays.                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 7          | System Chassis                                                                         | Rack mount, 2U (maximum), redundant hot-swappable power supply with platinum efficiency.                                                                                                                                                            |                     |                            |                                                                     |
| 8          | OS Certificate                                                                         | Certification for the latest server versions of Windows and Linux.                                                                                                                                                                                  |                     |                            |                                                                     |
| 9          | IDC Ranking                                                                            | OEM should be ranked within the top 3 as per the IDC report for any one of the previous four quarters in India for servers.                                                                                                                         |                     |                            |                                                                     |
| <b>1.2</b> | <b>Workstation</b>                                                                     |                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 1          | Processor Make                                                                         | Intel                                                                                                                                                                                                                                               |                     |                            |                                                                     |
| 2          | Processor Generation                                                                   | Intel Core i7, 10th Generation or higher                                                                                                                                                                                                            |                     |                            |                                                                     |
| 3          | Number of Cores                                                                        | 8 or above                                                                                                                                                                                                                                          |                     |                            |                                                                     |
| 4          | Cache (MB)                                                                             | 16 or above                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 5          | Processor base Frequency (GHz)                                                         | 2.90 GHz or above                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 6          | Motherboard                                                                            | Intel / OEM                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 7          | Type of RAM                                                                            | DDR4 or better                                                                                                                                                                                                                                      |                     |                            |                                                                     |
| 8          | RAM Size (GB)                                                                          | 8 GB or above                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 9          | RAM Speed (MHz)                                                                        | DDR4-2666 or better                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 10         | RAM Expandability up to                                                                | 64 GB or above                                                                                                                                                                                                                                      |                     |                            |                                                                     |
| 11         | Type of Hard Disk Drive                                                                | HDD / SSD or Both                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 12         | Capacity of HDD (GB)                                                                   | (a) 512 SSD / 1000 SSD or (b) 512 SSD + 1TB HDD                                                                                                                                                                                                     |                     |                            |                                                                     |
| 13         | Operating System (Factory Pre-Loaded)                                                  | Windows 11 Professional 64 bit or latest                                                                                                                                                                                                            |                     |                            |                                                                     |
| 14         | Input Devices                                                                          | Standard USB Keyboard - Wired                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 15         | Mouse                                                                                  | Optical USB Mouse - Wired                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 16         | Ports                                                                                  | Four or more                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 17         | HDMI /VGA or both                                                                      | Yes                                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 18         | Other                                                                                  | Microphone, Stereo headphone and other standard port                                                                                                                                                                                                |                     |                            |                                                                     |
| 19         | Networking                                                                             | Ethernet - Yes - 10/100/1000                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 20         | Display                                                                                | Diagonal Viewing Size (Inch) - 15.6 Inches or above.                                                                                                                                                                                                |                     |                            |                                                                     |
| 21         | Resolution                                                                             | 1920 x 1080 FHD or above                                                                                                                                                                                                                            |                     |                            |                                                                     |
| 22         | Input Devices                                                                          | Standard USB Keyboard                                                                                                                                                                                                                               |                     |                            |                                                                     |
| 23         | Mouse                                                                                  | Optical USB Mouse                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 24         | Anti-Virus                                                                             | To be included with 5 years licence                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 25         | BEE / Energy Star for the given Model                                                  | Yes                                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 26         | Certifications                                                                         | (FCC/CE/CB), BIS and RoHS                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 27         | MS Office                                                                              | Factory preloaded MS Office 2021 (Home and business life time)                                                                                                                                                                                      |                     |                            |                                                                     |
| 28         | Warranty                                                                               | On Site OEM Warranty (Year) - 5 Years comprehensive warranty                                                                                                                                                                                        |                     |                            |                                                                     |
| <b>1.3</b> | <b>VMS Software</b>                                                                    |                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 1          | <b>The system should be easy to install, learn, operate and manage:</b>                |                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
|            | The VMS must have rich user interface that provides one-click access, drag-drop, menu, |                                                                                                                                                                                                                                                     |                     |                            |                                                                     |

| Sno | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|     | customizable GUI etc. to enhance operational efficiently in daily tasks and maintain The VMS shall have ability to respond fast & shall be applicable to all processes, functions, features, and screens of a video management system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
| 2   | Simple, clear documentation including User Guides (how to use the product) and Technical Reference Manuals (quick reference on functions and procedures) shall be submitted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |                            |                                                                     |
| 3   | <b>Scalability:</b> The proposed video management system shall be able to support any no. of CCTV Cameras so as to accommodate any future expansion System shall support viewing of video from multiple locations and by multiple users. The VMS shall support 500 or more cameras. Well documented Software Development Kit (SDK): The SDK should include a rich, easy-to-use Application Programming Interface (API) support if required. Input and output support: The VMS shall have ability to receive and support recording based on inputs or alarms.Event management: The VMS shall have ability to enforce custom settings for event detection, alarm notification, recording, input/out (I/O) control, and other features in response to events. The alarm management module shall support graphical displays with interactive icons to display the status of the cameras & other inputs. Support for standard protocols: The VMS shall have ability to maintain independence from any one vendor & shall support open standard protocol i.e. ONVIF profile S |                     |                            |                                                                     |
| 4   | Smooth software upgrade path for support of new devices, drivers and operating systems. System should be able to implement software upgrades without requiring all hardware components to be reconfigured. System should provide Database Server Hot Redundancy from day one, Camera Server Hot Redundancy, and automatic fault tolerance for robust system uptime and Distributed database and video storage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
| 5   | On screen help and instructions: The system should provide help and assistance through help guide on same station.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                            |                                                                     |
| 6   | User management with user roles & privileges right to view, acknowledge alarms shall be available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 7   | Centrally controlled user management - Users, roles, rules and privileges should be stored on the central VMS server allowing any authorized user to log into any workstation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
| 8   | <b>Recording Server:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |                            |                                                                     |
|     | · The System shall not restrict the number of recording servers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
|     | · Shall support dual streaming                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
|     | · Shall allow each camera to be viewed independently by client viewer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
|     | · Recording from connected cameras shall be stored in NAS/SAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
|     | · Shall support multiple storage form                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
|     | · Shall support recording in all resolution at desired FPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
|     | · Shall support video cum audio recording                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                            |                                                                     |
| 9   | The VMS shall have ability to configure access privileges and other parameters for all users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 10  | Support for event based or schedule-based recordings to optimize bandwidth and storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
| 11  | Customizable recording retention period for specific camera.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |                            |                                                                     |
| 12  | <b>Remote Users:</b> Should support at least 10 remote users via network/web browser/client software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |                            |                                                                     |
| 13  | Wizard driven installation of software updates for VMS server and client machines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 14  | Support and configuration options for virtual matrix.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 15  | Copy or Clone option to install new device based on already configured device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
| 16  | The VMS shall have ability to easily install, configure, modify, search and remove surveillance devices with automatic discovery of IP devices using external tool or in built options.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 17  | Option to install other devices like Analog cameras, encoders, microphone-speakers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 18  | The VMS shall have ability to logically group devices based on installation location & device type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 19  | The VMS shall have ability to search and view device(s) based on standard criteria like Camera ID/ Name, Location, Group, etc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 20  | The VMS shall have ability to enforce access privileges (View /Add /Edit/ Remove) to device(s).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 21  | The VMS shall have ability to draw and configure map of surveillance facility, choose back-ground images, User-definable symbols (for deployed devices)and programmable functions, e.g., hyperlinks, controlling video feed, initialling alarms etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |                            |                                                                     |
| 22  | Remote firmware updates notifications and wizard driven installation shall be part of camera feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 23  | Provision for independent storage settings for individual camera feeds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 24  | The VMS shall have ability to configure multiple streams with different quality parameters e.g. Codec (H.264, MPEG, JPEG) , resolution, frame & bit rate etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 25  | Support for full duplex audio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 26  | a) The VMS shall have ability to create and assign pre-configured views/layouts for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |

| Sno | Specification                                                                                                                                                                                                                                                                                                                                                                                                                              | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|     | monitoring including features like:                                                                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
|     | b) The VMS shall support Sequencing in Views, whereby the pre-sets of PTZ cameras as well as fixed cameras are cycled on a timed basis, within a single view or within the view port of a multiple camera view.                                                                                                                                                                                                                            |                     |                            |                                                                     |
|     | c) Linking images, maps a view,                                                                                                                                                                                                                                                                                                                                                                                                            |                     |                            |                                                                     |
|     | d) The VMS shall support sequence views. A sequence view consists of a single camera view, which can be cycled on a time basis. Pan-tilt-zoom cameras, which support pre-set positions, can have these pre-sets cycled on a time basis. In this way an operator can view a variety of pre-sets on a series of PTZ cameras. Fixed cameras can also be included in the sequence and cycled accordingly.                                      |                     |                            |                                                                     |
|     | e) Special views for widescreen monitors,                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
|     | f) Updating a view only on motion detection,                                                                                                                                                                                                                                                                                                                                                                                               |                     |                            |                                                                     |
|     | g) Granting or revoking permission to use the view etc.                                                                                                                                                                                                                                                                                                                                                                                    |                     |                            |                                                                     |
| 27  | Setup Virtual matrix on operator workstation monitor                                                                                                                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 28  | Basic recording options [Full, Scheduled recoding, Motion detection recording, external/internal hardware or software events / trigger-based recording]                                                                                                                                                                                                                                                                                    |                     |                            |                                                                     |
| 29  | Advanced recordings options [Video only, Video plus Audio, Retention rules, Archive/back-up rules, and storage limits report set.                                                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
| 30  | The VMS shall have ability to configure, store and track both pre- and post-event recordings. The pre-post event time should be configurable.                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| 31  | PTZ configuration including pre-sets, patterns, patrolling, masking, priority and permissions should be possible from camera web page                                                                                                                                                                                                                                                                                                      |                     |                            |                                                                     |
| 32  | The VMS shall have ability to support operations from Web/IE client, Windows Client /Mobile devices etc. Popup display on the screen in case of any event/alarm/threshold etc.                                                                                                                                                                                                                                                             |                     |                            |                                                                     |
| 33  | Multiple monitor support: The system should allow connecting minimum 2 or more as per proposed Solution multiple monitors on single client workstation (loaded with suitable graphics card) and display different contents on each of the connected monitor.                                                                                                                                                                               |                     |                            |                                                                     |
| 34  | All panes / tiles should indicate mode (live or recoded), source (camera name/location) and date/time and applied quality information (FPS, CODEC). A matrix view should support minimum 2x2, 3x3, 4x4 on small monitors and 9x9 formats on video wall and any number of multiple screen divisions.                                                                                                                                        |                     |                            |                                                                     |
| 35  | PTZ controls: When PTZ is deployed and enabled, system should offer a separate control panel for PTZ operations. The control panel should include list of pre-sets, patterns, tours, eight directional & home positions and zoom-in & zoom-out buttons. A dedicated joystick can also be used for PTZ operations.                                                                                                                          |                     |                            |                                                                     |
| 36  | PC keyboard shortcut keys: Along with menu-driven interface, a VMS should also support shortcut keys to helps operators quickly switch between different cameras/matrix views.                                                                                                                                                                                                                                                             |                     |                            |                                                                     |
| 37  | <b>Snapshots:</b> System should allow creating a still image from live or recorded feed and storing it into a workstation.                                                                                                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 38  | Replay facility with timeline control to display and play back recorded video for one or more cameras. Playback shall be possible on 1 or more cameras simultaneously for all cameras currently displayed in the Video Workspace.                                                                                                                                                                                                          |                     |                            |                                                                     |
| 39  | The VMS shall have ability to bookmark / add-to-favorites in both live and playback modes. Bookmarks shall be created, search, removed by the owner.                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 40  | Digital zoom to enlarge portion of an image to provide superior zooming capability.                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 41  | The VMS shall have ability to Start/Stop Recording on demand (manually).                                                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 42  | Option to view surrounding cameras: The system should enable operators to configure camera feed and based on group/subgroup details, its surrounding cameras should be automatically displayed on separate panes based on alarms.                                                                                                                                                                                                          |                     |                            |                                                                     |
| 43  | Evidence export feature: The system should allow users to export audio/video evidence in open format for internal investigation or to share authentic proof to public authorities and outside agencies. Alternatively, the bidder may provide the required player/software to run the exported video file if the VMS does not support to export in avi or another standard format.                                                         |                     |                            |                                                                     |
| 44  | The VMS shall provide an advanced search of recorded video. The search shall be based on recording time, camera and recording details. Wildcards shall be accepted for the Point ID, description, area, priority and value for alarm/event activated recordings. Smart (motion) Search: The feature should enable users to select area of interest on any given view of camera recording, and search for motion incidents within that area |                     |                            |                                                                     |
| 45  | The VMS should have onscreen process guidance/help menu & instruction                                                                                                                                                                                                                                                                                                                                                                      |                     |                            |                                                                     |
| 46  | The system should offer following playback controls                                                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
|     | · Play/Pause                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |                            |                                                                     |
|     | · Forward playback                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
|     | · Reverse playback                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
|     | · Frame forward                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |                            |                                                                     |
|     | · Frame rewind                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |                            |                                                                     |
| 47  | <b>Evidence Printing:</b> Option to create and print a small surveillance report that includes                                                                                                                                                                                                                                                                                                                                             |                     |                            |                                                                     |

| Sno | Specification                                                                                                                                                                                                                                | Compliance in value                  | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------|---------------------------------------------------------------------|
|     | image(s) and comments about recorded incident from command control system.                                                                                                                                                                   |                                      |                            |                                                                     |
| 48  | The system should enable users to view different graphics to preconfigured displays.                                                                                                                                                         |                                      |                            |                                                                     |
| 49  | The system/camera should offer options to set Brightness, Contrast, Sharpness etc.                                                                                                                                                           |                                      |                            |                                                                     |
| 50  | The VMS/VA system should have in-built, configurable, basic motion detection analytic engine that efficiently                                                                                                                                |                                      |                            |                                                                     |
|     | · Detects motion                                                                                                                                                                                                                             |                                      |                            |                                                                     |
|     | · Virtual line                                                                                                                                                                                                                               |                                      |                            |                                                                     |
|     | · Auto tracking / person annotations                                                                                                                                                                                                         |                                      |                            |                                                                     |
|     | <b>The system should have event/alarm management module that allows generating, distributing, storing, tracking and reporting of incidents and events as they occur. The VMS shall have ability to:</b>                                      |                                      |                            |                                                                     |
|     | · System should support latched alarm. i.e. Alarms once reported, requires correction to be removed from the system.                                                                                                                         |                                      |                            |                                                                     |
|     | · Configure automatic/programmed responses based on priority and escalation level for specific event(s).                                                                                                                                     |                                      |                            |                                                                     |
|     | · Send email and SMS notifications to respective users.                                                                                                                                                                                      |                                      |                            |                                                                     |
|     | · Search and view list of triggered events based on source, priority, event type, date/time, etc.                                                                                                                                            |                                      |                            |                                                                     |
|     | · Acknowledge events – Change status, key-in more information                                                                                                                                                                                |                                      |                            |                                                                     |
|     | · Escalate event records to the next level of users or share event records with other users through command control.                                                                                                                         |                                      |                            |                                                                     |
|     | · Allow manual respond to triggered events including activating external hardware and transmitting I/O commands.                                                                                                                             |                                      |                            |                                                                     |
|     | · Consolidated e-reports generation with archive video, images, text and other file attachments through command control                                                                                                                      |                                      |                            |                                                                     |
| 51  | The VMS/ Command control system should provide interactive reporting interface with standard and user-defined custom reports and filtering options to:                                                                                       |                                      |                            |                                                                     |
|     | · Retrieve audit trails - user activities, errors and system logs.                                                                                                                                                                           |                                      |                            |                                                                     |
|     | · View list of hardware units and selected configuration options.                                                                                                                                                                            |                                      |                            |                                                                     |
|     | · Storage usage report detailing the available and consumed storage for specific Recording Servers in the VMS                                                                                                                                |                                      |                            |                                                                     |
| 58  | The system should have Inbuilt diagnostic utility that gathers several different functions of deployed hardware and software modules and attempts/assist to correct the problem in case of deviations from the established baselines occurs. |                                      |                            |                                                                     |
| 59  | The facility should be there to extract & save the video footages / images on CD, DVD, USB, External Storage etc.                                                                                                                            |                                      |                            |                                                                     |
| 60  | The system should continuously monitor the connectivity with camera even when not connected for live or recording. Upon any failures, system should raise as alarm.                                                                          |                                      |                            |                                                                     |
| 61  | Various video analytics that shall be offered on identified cameras are: -                                                                                                                                                                   |                                      |                            |                                                                     |
|     | a) Loitering /Vandalism around area under observation                                                                                                                                                                                        |                                      |                            |                                                                     |
|     | b) Video Loss Alarm                                                                                                                                                                                                                          |                                      |                            |                                                                     |
|     | c) People Head Counting or Crowd Recognition                                                                                                                                                                                                 |                                      |                            |                                                                     |
|     | d) Camera Tampering/Camera ON/OFF video alarms                                                                                                                                                                                               |                                      |                            |                                                                     |
|     | e) Image Masking- Privacy Protection Video Tracking of Person                                                                                                                                                                                |                                      |                            |                                                                     |
|     | f) Video Tracking of Person/Object in field of view                                                                                                                                                                                          |                                      |                            |                                                                     |
|     | g) Left/Abandoned Item Detection and Removed Item Detection                                                                                                                                                                                  |                                      |                            |                                                                     |
|     | h) Virtual Fence/Perimeter Breach/ Entry —Exit in restricted zone                                                                                                                                                                            |                                      |                            |                                                                     |
| 1.4 | <b>8 port Industrial switch</b>                                                                                                                                                                                                              |                                      |                            |                                                                     |
| 1   | Switch Should Support 8 10/100BASE-T PoE, 2 SFP ports                                                                                                                                                                                        |                                      |                            |                                                                     |
| 2   | switch should support Operating Temperature 0 to 60 °C                                                                                                                                                                                       |                                      |                            |                                                                     |
| 3   | Switch Should Support Min. 20 Gbps Switching Capacity and Maximum 64 Byte, Packet Forwarding Rate is 14.88 MPPS, 8K MAC address table.                                                                                                       |                                      |                            |                                                                     |
| 4   | Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and minimum 240W Power Budget.                                                                                                                                            |                                      |                            |                                                                     |
| 5   | Switch Should Support IGMP Snooping v1, v2 and MLD snooping v1/v2                                                                                                                                                                            |                                      |                            |                                                                     |
| 6   | Switch Should Support 4K VLAN ID's, Min 256 static VLAN                                                                                                                                                                                      |                                      |                            |                                                                     |
| 7   | Switch Should Support Port Mirroring One to one/Many to One,                                                                                                                                                                                 |                                      |                            |                                                                     |
| 8   | Switch should support Quality of Service (QoS), 802.1p, Strict, Weighted Round Robin (WRR), Bandwidth Control.                                                                                                                               |                                      |                            |                                                                     |
| 9   | Switch Should Support IP interfaces, Static routing for inter-VLAN Communication                                                                                                                                                             |                                      |                            |                                                                     |
| 10  | Switch should be supplied with the all-necessary components like Power supply, Power cord, Console Cable, Rack-mount kit, Installation Guide, etc. and necessary software image file to fulfil all above-mentioned feature set from day 1.   |                                      |                            |                                                                     |
| 1.5 | <b>1 KVA UPS</b>                                                                                                                                                                                                                             |                                      |                            |                                                                     |
| 1   | Capacity                                                                                                                                                                                                                                     | 1 KVA, 800 Watt (1Øinput/ 1Ø output) |                            |                                                                     |
| 2   | Topology                                                                                                                                                                                                                                     | True Online Double Conversion UPS    |                            |                                                                     |

| Sno                                       | Specification                                                                                                                                                                        |                                                                                                                  | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|                                           |                                                                                                                                                                                      | Standalone UPS with single battery bank                                                                          |                     |                            |                                                                     |
| 3                                         | Technology                                                                                                                                                                           | Microprocessor based, PWM with IGBT based, Phase neutral reversal protection                                     |                     |                            |                                                                     |
|                                           | <b>INPUT</b>                                                                                                                                                                         |                                                                                                                  |                     |                            |                                                                     |
| 1                                         | Input Facility                                                                                                                                                                       | 1Ø, 2-wire & Ground, (Phase & Neutral + Ground)                                                                  |                     |                            |                                                                     |
| 2                                         | Input Voltage Range                                                                                                                                                                  | 160 ~ 280 VAC (On 100% Load), 120~290 VAC (On 50% Load),                                                         |                     |                            |                                                                     |
| 3                                         | Input Frequency Range                                                                                                                                                                | 45 ~55Hz, Autosensing                                                                                            |                     |                            |                                                                     |
| 4                                         | Input Power Factor                                                                                                                                                                   | ≥0.99                                                                                                            |                     |                            |                                                                     |
| 5                                         | THDI                                                                                                                                                                                 | ≤10%                                                                                                             |                     |                            |                                                                     |
|                                           | <b>OUTPUT</b>                                                                                                                                                                        |                                                                                                                  |                     |                            |                                                                     |
| 1                                         | Power Factor                                                                                                                                                                         | 0.8                                                                                                              |                     |                            |                                                                     |
| 2                                         | Nominal Output Voltage                                                                                                                                                               | 220/230VAC                                                                                                       |                     |                            |                                                                     |
| 3                                         | Voltage regulation                                                                                                                                                                   | ± 1% static, ± 5% for Dynamic Load                                                                               |                     |                            |                                                                     |
| 4                                         | Nominal Frequency                                                                                                                                                                    | 50Hz                                                                                                             |                     |                            |                                                                     |
| 5                                         | Waveform                                                                                                                                                                             | Sine wave                                                                                                        |                     |                            |                                                                     |
| 6                                         | Crest factor                                                                                                                                                                         | 0.125694444                                                                                                      |                     |                            |                                                                     |
| 7                                         | Total harmonic distortion (THDY)                                                                                                                                                     | < 3% (linear load); <5% (nonlinear load)                                                                         |                     |                            |                                                                     |
| 8                                         | Output Short Circuit Protection                                                                                                                                                      | Electronic, trip                                                                                                 |                     |                            |                                                                     |
| 9                                         | Transfer time                                                                                                                                                                        | Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: < 4ms                                            |                     |                            |                                                                     |
| 10                                        | Maintenance/Manual Bypass                                                                                                                                                            | Automatic & Manual                                                                                               |                     |                            |                                                                     |
| 11                                        | DC Ripple factor                                                                                                                                                                     | ≤1%                                                                                                              |                     |                            |                                                                     |
| 12                                        | Efficiency                                                                                                                                                                           | Overall (Ac to AC): > 92%                                                                                        |                     |                            |                                                                     |
| 13                                        | Inverter overload capability                                                                                                                                                         | Upto 100% infinite                                                                                               |                     |                            |                                                                     |
|                                           |                                                                                                                                                                                      | >100% ~ 110%: for 60 Secs;                                                                                       |                     |                            |                                                                     |
|                                           |                                                                                                                                                                                      | >110% ~ 130%: for 10 Secs;                                                                                       |                     |                            |                                                                     |
|                                           |                                                                                                                                                                                      | > 130%: upto 1 seconds                                                                                           |                     |                            |                                                                     |
| <b>BATTERY &amp; BATTERY BANK CHARGER</b> |                                                                                                                                                                                      |                                                                                                                  |                     |                            |                                                                     |
| 1                                         | DC BUS voltage                                                                                                                                                                       | 36 VDC                                                                                                           |                     |                            |                                                                     |
| 2                                         | Batteries Type                                                                                                                                                                       | Sealed Maintenance Free, 12 V                                                                                    |                     |                            |                                                                     |
| 3                                         | Battery Make                                                                                                                                                                         | Exide/Quanta                                                                                                     |                     |                            |                                                                     |
| 4                                         | Battery Back up                                                                                                                                                                      | 1 hour on full load                                                                                              |                     |                            |                                                                     |
| 5                                         | Number of Battery Banks                                                                                                                                                              | One or Two maximum                                                                                               |                     |                            |                                                                     |
| 6                                         | Required VAH                                                                                                                                                                         | 1512                                                                                                             |                     |                            |                                                                     |
| 7                                         | Minimum Charger Rating                                                                                                                                                               | The Charger should be able to deliver charging current (minimum) equivalent to 10% of Battery AH rating offered. |                     |                            |                                                                     |
| 8                                         | Battery re-charge time (After complete discharge) to 90% capacity                                                                                                                    | 8-10.Hours                                                                                                       |                     |                            |                                                                     |
| 9                                         | Cold Start                                                                                                                                                                           | should be provided                                                                                               |                     |                            |                                                                     |
| <b>Environmental</b>                      |                                                                                                                                                                                      |                                                                                                                  |                     |                            |                                                                     |
| 1                                         | Operating Temperature                                                                                                                                                                | 0-50 degree C                                                                                                    |                     |                            |                                                                     |
| 2                                         | Type of Cooling                                                                                                                                                                      | Forced Air                                                                                                       |                     |                            |                                                                     |
| 1.6                                       | <b>24 port Central Switch</b>                                                                                                                                                        |                                                                                                                  |                     |                            |                                                                     |
| 1                                         | Architecture                                                                                                                                                                         |                                                                                                                  |                     |                            |                                                                     |
| 2                                         | Shall be 19" Rack Mountable Stackable or Integrated solution                                                                                                                         |                                                                                                                  |                     |                            |                                                                     |
| 3                                         | Switch shall have 24 Nos. of 10/100/1000 Base-T POE+ Ports and 4 nos. 1/10G SFP+ ports support.                                                                                      |                                                                                                                  |                     |                            |                                                                     |
| 4                                         | Shall have one Console (RJ-45/Serial) Port                                                                                                                                           |                                                                                                                  |                     |                            |                                                                     |
| 5                                         | Shall have switching capacity of 128 Gbps                                                                                                                                            |                                                                                                                  |                     |                            |                                                                     |
| 6                                         | Shall have up to 95 million pps switching throughput                                                                                                                                 |                                                                                                                  |                     |                            |                                                                     |
| 7                                         | Shall support Stacking functionality                                                                                                                                                 |                                                                                                                  |                     |                            |                                                                     |
| 8                                         | Shall support minimum 370W POE+ budget and 4MB packet buffer                                                                                                                         |                                                                                                                  |                     |                            |                                                                     |
| 1.7                                       | <b>CCTV Pole</b>                                                                                                                                                                     |                                                                                                                  |                     |                            |                                                                     |
| 1                                         | Mounting structure: Use minimum 5Mtr. High Cylindrical GI Pole (Class B) or suitable structure with 4.5 Mtr. Minimum vertical clearance under the CCTV Camera from the Road surface. |                                                                                                                  |                     |                            |                                                                     |
| 2                                         | The mounting shall be capable of withstanding roadside vibrations at site of installation.                                                                                           |                                                                                                                  |                     |                            |                                                                     |
| 3                                         | It shall be provided with suitable walkway for maintenance access.                                                                                                                   |                                                                                                                  |                     |                            |                                                                     |
| 4                                         | The side interior and rear of enclosures are provided in maintenance free finish. All enclosure is flat and wipe clean.                                                              |                                                                                                                  |                     |                            |                                                                     |
| 5                                         | For Structural safety, structural safety certificate shall be provided from qualified structural engineers.                                                                          |                                                                                                                  |                     |                            |                                                                     |
| 6                                         | Wind Load: WL9 as per EN12966 to withstand high wind speeds and its own load - HT                                                                                                    |                                                                                                                  |                     |                            |                                                                     |

| Sno         | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance in value                                                                                                                                      | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|
|             | Steel Conforming to grade S355                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                          |                            |                                                                     |
| 7           | Pole Base plate - Fe 410 Conforming to IS 226/IS 2062                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                          |                            |                                                                     |
| 8           | Foundation Bolt- EN 8 grade or better                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                          |                            |                                                                     |
| 9           | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 provided with average coating thickness of 80 Micron or higher. The galvanizing shall be done in single dipping.                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |                            |                                                                     |
| 10          | The pole shall be installed cast in- SITU RCC foundation on studs with nuts & washers and with adequate number of foundation bolts for greater rigidity basis the soil bearing test report of the actual site.                                                                                                                                                                                                                                                        |                                                                                                                                                          |                            |                                                                     |
| <b>1.8</b>  | <b>ANPR Pole</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                          |                            |                                                                     |
| 1           | The Conical/Polygonal pole and cantilever arm of 2 Meter should be designed to with stand maximum wind speed as per IS: 857 (Minimum 50 m/Sec). Certificate for the structural integrity of the pole shall be submitted to justify the pole dimensions.                                                                                                                                                                                                               |                                                                                                                                                          |                            |                                                                     |
| 2           | Pole shaft and cantilever have conical/polygonal cross section and shall be preferably continuously tapered with single longitudinal welding.                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                          |                            |                                                                     |
| 3           | Pole shaft shall be provided with a grade flange plate of suitable thickness with provision of fixing suitable no. of foundation bolts. This base plate shall be filletted welded to the pole shaft at two locations i.e., from inside & outside.                                                                                                                                                                                                                     |                                                                                                                                                          |                            |                                                                     |
| 4           | Conical/ Polygonal pole shall have approximately 500 MM door opening length at the elevation of 500 mm from base plate. The door shall be vandal resistant and shall be weatherproof to ensure safety of electrical connections inside the pole. The door shall be flush fit with locking facility. The pole shall be additionally reinforced with welded steel section, so that the section at door is unaffected and undue bucking of the cut section is prevented. |                                                                                                                                                          |                            |                                                                     |
| 5           | <b>Material of construction shall be:</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                          |                            |                                                                     |
| A           | Conical/ Polygonal pole shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 3 MM                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                          |                            |                                                                     |
| B           | Conical/Polygonal cantilever arm shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 2.5 MM                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                          |                            |                                                                     |
| C           | Pole base plate - Fe 410 Conforming to IS 226/IS 2062 with minimum thickness of 16 MM                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                          |                            |                                                                     |
| D           | Pole foundation Bolt- EN 8 grade, GI                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                          |                            |                                                                     |
| 6           | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 slandered with average coating thickness of 86 Micron. The galvanizing shall be done in single dipping.                                                                                                                                                                                                                                                                                                |                                                                                                                                                          |                            |                                                                     |
| 7           | The pole shall be installed on a precast or cast in- SITU RCC foundation on studs with nuts & washers and with a set of four foundation bolt for greater rigidity basis the soil bearing test report of the actual site.                                                                                                                                                                                                                                              |                                                                                                                                                          |                            |                                                                     |
| <b>1.9</b>  | <b>Double Jacket cat6 cable</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |                            |                                                                     |
| 1           | 4 Pair Cable with integral cross -member pair separator for uniform characteristic impedance.                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                          |                            |                                                                     |
| 2           | Category 6 Unshielded Twisted 4 Pair 100 $\Omega$ cable shall be compliant with ANSI/ TIA/ EIA-568-C.2- 1/ ROHS Additional ISO/ IEC 11801 2ndEd. Transmission Performance Specification for 4 Pair 100 $\Omega$ , Category 6 Cabling                                                                                                                                                                                                                                  |                                                                                                                                                          |                            |                                                                     |
| 3           | Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, UTP cable jacket.                                                                                                                                                                                                                                                                                                               |                                                                                                                                                          |                            |                                                                     |
| 4           | Conductor: Solid Copper                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                          |                            |                                                                     |
| 5           | Conductor Diameter: 0.574, $\pm$ 0.01mm (23AWG)                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |                            |                                                                     |
| 6           | Inner Jacket: LSZH/ PE/ PVC                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |                            |                                                                     |
| 7           | Outer Jacket: PE -Black, Anti-Rodent, LSZH/ PE/ PVC                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                          |                            |                                                                     |
| 8           | Max Temperature: -10°C to +60°C                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |                            |                                                                     |
| 9           | Mechanical Test                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |                            |                                                                     |
| 10          | Should have Pulling force more than 10 Kg.                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                          |                            |                                                                     |
| 11          | Electrical Test                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                          |                            |                                                                     |
| 12          | Conductor Resistance: <9.38 $\Omega$ /100m                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                          |                            |                                                                     |
| 13          | Resistance Unbalance 5% Max                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                          |                            |                                                                     |
| 14          | Mutual Capacitance: < 5.6nF/100m                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                          |                            |                                                                     |
| 15          | Capacitance Unbalance: 330pF/100m.                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                          |                            |                                                                     |
| 16          | Characteristic Impedance: 100 $\pm$ 15 $\Omega$ conductor                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                          |                            |                                                                     |
| <b>1.10</b> | <b>Outdoor JB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                          |                            |                                                                     |
| <b>S.n</b>  | <b>Parameter</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Min. Specification</b>                                                                                                                                |                            |                                                                     |
| 1           | Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Suitable size as per site requirements to house the field equipment.                                                                                     |                            |                                                                     |
| 2           | Cabinet Material                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GI with powder coated (Antirust coating)                                                                                                                 |                            |                                                                     |
| 3           | Material Thickness                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Min 1.2 mm                                                                                                                                               |                            |                                                                     |
| 4           | Number of Locks                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Three Point Lock                                                                                                                                         |                            |                                                                     |
| 5           | Protection                                                                                                                                                                                                                                                                                                                                                                                                                                                            | IP 55, Junction Box design should ensure to keep the temperature within suitable operating range for equipment's and should also avoid intentional water |                            |                                                                     |

| Sno                       | Specification                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                              | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|                           |                                                                                                                                                                                                                                                                  | splash and dust intake. With built-in redundant fan and filter assembly inherent in the design. Junction Box design should ensure to keep the Operating temperature range of 10° C to 50° C.                                                                                                                                                                 |                     |                            |                                                                     |
| 6                         | Mounting                                                                                                                                                                                                                                                         | To be mounted on a Base stand made up of powder coated MS Angle Profile with minimum height of 600 MM and should be covered from all sides with GI/MS powder coated sheet of minimum 1.2 MM thickness. The height of the stand to be selected based on the surface gradient to ensure that in case of waterlogging the logged water should not enter the JB. |                     |                            |                                                                     |
| 7                         | Cabling                                                                                                                                                                                                                                                          | All cabling to be brought from the bottom through double compression glands to ensure that the IP rating is not compromised.                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 8                         | Form Factor                                                                                                                                                                                                                                                      | Rack Mount/DIN Rail                                                                                                                                                                                                                                                                                                                                          |                     |                            |                                                                     |
| 9                         | Other Features                                                                                                                                                                                                                                                   | Rain Canopy, Cable entry with glands, proper earthing and Fans/any other accessories as required for operation of equipment's within junction box.                                                                                                                                                                                                           |                     |                            |                                                                     |
| 10                        | Additional                                                                                                                                                                                                                                                       | Pocket to keep papers/file on inner side of the door LED light with limit switch to switch on the light once door is open. Additionally, a power off switch also to be available on the LED light.                                                                                                                                                           |                     |                            |                                                                     |
| <b>1.11 Network SPD</b>   |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| 1                         | Connection Type                                                                                                                                                                                                                                                  | Series connection                                                                                                                                                                                                                                                                                                                                            |                     |                            |                                                                     |
| 2                         | Application Type                                                                                                                                                                                                                                                 | 10/100/1000 Mbps LAN                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 3                         | Transmission Speed                                                                                                                                                                                                                                               | 1 Gbps                                                                                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 4                         | Application                                                                                                                                                                                                                                                      | Secondary 8 wire category 6                                                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
| 5                         | Connector                                                                                                                                                                                                                                                        | RJ 45                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 6                         | Nominal Surge Current                                                                                                                                                                                                                                            | Core to Core: 350 A (8/20 $\mu$ s)<br>Core to Ground: 2 KA (8/20 $\mu$ s)                                                                                                                                                                                                                                                                                    |                     |                            |                                                                     |
| 7                         | Pulse discharge current                                                                                                                                                                                                                                          | 1 kA                                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 8                         | Maximum Continuous                                                                                                                                                                                                                                               | $\pm 5$ V DC ( $\pm 57$ V DC / PoE+)                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 9                         | Enclosure                                                                                                                                                                                                                                                        | IP20                                                                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 10                        | Temperature (Ambient)                                                                                                                                                                                                                                            | -10°C to 55 °C or above                                                                                                                                                                                                                                                                                                                                      |                     |                            |                                                                     |
| 11                        | Voltage Protection level                                                                                                                                                                                                                                         | Core – core $\leq 20$ V<br>Core – Earth $\leq 700$ V                                                                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 12                        | SPD Compliance                                                                                                                                                                                                                                                   | IEC 61643-21 or equivalent BIS                                                                                                                                                                                                                                                                                                                               |                     |                            |                                                                     |
| 13                        | Approvals                                                                                                                                                                                                                                                        | CU, UL Listed or equivalent BIS                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| <b>1.12 Power SPD</b>     |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| 1                         | IEC test Classification                                                                                                                                                                                                                                          | II / T2 or BIS Equivalent                                                                                                                                                                                                                                                                                                                                    |                     |                            |                                                                     |
| 2                         | Technology                                                                                                                                                                                                                                                       | L-N: MOV Technology<br>& N-PE: GDT Technology                                                                                                                                                                                                                                                                                                                |                     |                            |                                                                     |
| 3                         | Pluggability                                                                                                                                                                                                                                                     | Pluggable for Safe and Easy Maintenance and have provision of testing respective plugs for preventive periodic health monitoring.                                                                                                                                                                                                                            |                     |                            |                                                                     |
| 4                         | Nominal Voltage Un                                                                                                                                                                                                                                               | 240 / 415 V AC (TN-S / TT)                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 5                         | Maximum Continuous Operating Voltage                                                                                                                                                                                                                             | 335 V AC                                                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 6                         | Nominal Discharge Current                                                                                                                                                                                                                                        | 20 kA                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 7                         | Maximum Discharge Current                                                                                                                                                                                                                                        | 40 kA                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 8                         | Short Circuit Current rating ISCCR                                                                                                                                                                                                                               | 25 kA                                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 9                         | Voltage Protection Level Up (L-N)                                                                                                                                                                                                                                | $\leq 1.5$ kV                                                                                                                                                                                                                                                                                                                                                |                     |                            |                                                                     |
| 10                        | Temporary Over Voltage UT (L-N)                                                                                                                                                                                                                                  | 415 V AC (5s / Withstand Mode) or better                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 11                        | Temporary Over Voltage UT (N-PE)                                                                                                                                                                                                                                 | 1200 V AC (200ms / Withstand Mode) or better                                                                                                                                                                                                                                                                                                                 |                     |                            |                                                                     |
| 12                        | Response time                                                                                                                                                                                                                                                    | L-N: $\leq 25$ ns<br>N-PE: $\leq 100$ ns                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| 13                        | Mounting                                                                                                                                                                                                                                                         | DIN Rail                                                                                                                                                                                                                                                                                                                                                     |                     |                            |                                                                     |
| <b>1.13 ANPR Software</b> |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| 1                         | <b>Vehicle Detection and Video Capture Module</b>                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| A                         | The System should automatically detect a vehicle in the camera view using video detection and activate license plate recognition. Suitable external IR Illuminator with Eye Safety test report/ equivalent certification should be used in conjunction with ANPR |                                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |

| Sno                                                                                                                                          | Specification                                                                                                                                                                                                                                 | Compliance in value | Weather Compliance Yes/ No                                       | Actual proposed Specification (mentioning Make & Model of the item) |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------|---------------------------------------------------------------------|
|                                                                                                                                              | h) Virtual Fence/Perimeter Breach/ Entry –Exit in restricted zone                                                                                                                                                                             |                     |                                                                  |                                                                     |
| <b>G 2-Automatic number plate recognition system</b>                                                                                         |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| 1                                                                                                                                            | The ANPR System shall enable monitoring of vehicle flow at strategic locations.                                                                                                                                                               |                     |                                                                  |                                                                     |
| 2                                                                                                                                            | The system shall support real-time detection of vehicles at the deployed locations, reading its number plate, database lookup from central server and triggering of alarms / alerts based on the vehicle status as specified in the database. |                     |                                                                  |                                                                     |
| <b>G3 – Storage</b>                                                                                                                          |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| 1                                                                                                                                            | Complete system with appropriate accessories & fixtures for recording, storage of footages with a provision of retention for minimum 30 days.                                                                                                 |                     |                                                                  |                                                                     |
| 2                                                                                                                                            | Ensure ability of the system to view and record during day & night and also to capture the live video stream, store, retrieve and analyze video images with functional specifications specified in this document.                             |                     |                                                                  |                                                                     |
| 3                                                                                                                                            | External NL-SAS storage with RAID 5 configuration.                                                                                                                                                                                            |                     |                                                                  |                                                                     |
| 4                                                                                                                                            | Recording resolution FULL HD@ 30 FPS.                                                                                                                                                                                                         |                     |                                                                  |                                                                     |
| 5                                                                                                                                            | Flagged data may be <b>Approx 5% of recorded data</b> . Flagged data can be retain for at least 90 days.                                                                                                                                      |                     |                                                                  |                                                                     |
| <b>G4- General</b>                                                                                                                           |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| Ensure provision of latest version of licensed software and compatibility with 3rd party components / solutions for seamless integration.    |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| <b>H –Service Level Agreement (SLA)</b>                                                                                                      |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| As part of this RFP, Bidder shall ensure that redundancy and fault tolerance is considered at the components level in the actual deployment. |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| The following table details out service level agreement for service availability of components.                                              |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| <b>System availability</b> (Up time): System availability shall be calculated as $[100\% - (\text{Downtime} / \text{Total time}) * 100]$ .   |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
|                                                                                                                                              | <b>Parameter</b>                                                                                                                                                                                                                              | <b>SLA Target</b>   | <b>Penalty</b>                                                   | <b>Measurement Tool/Method</b>                                      |
|                                                                                                                                              | Servers, Cameras, networking equipments, networking & associated Software and Hardware mentioned in BOQ or any other peripherals components.                                                                                                  | >= 99.5% uptime     | · If uptime is Less than 99.5% and Greater than or equal to 98%. | Measured 24X7X365 (measured/ calculated monthly)                    |
|                                                                                                                                              |                                                                                                                                                                                                                                               |                     | Rs. 1000 / Hour Penalty Applicable.                              |                                                                     |
|                                                                                                                                              |                                                                                                                                                                                                                                               |                     | · If uptime is Less than 98.0% and Greater than or equal to 95%. |                                                                     |
|                                                                                                                                              |                                                                                                                                                                                                                                               |                     | Rs. 2000 / Hour Penalty Applicable.                              |                                                                     |
|                                                                                                                                              |                                                                                                                                                                                                                                               |                     | · If uptime is Less than 95.0%                                   |                                                                     |
|                                                                                                                                              |                                                                                                                                                                                                                                               |                     | Rs. 5000 / Hour Penalty Applicable.                              |                                                                     |
| <b>Note: Penalty shall be deducted from the Security Deposit.</b>                                                                            |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| <b>I-Command Control Centre</b>                                                                                                              |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| 1.                                                                                                                                           | All camera feeds should be available for viewing by Police Personnel at any point of time.                                                                                                                                                    |                     |                                                                  |                                                                     |
| 2.                                                                                                                                           | Command Control Center should have simultaneous viewing capability for about 10% of all cameras.                                                                                                                                              |                     |                                                                  |                                                                     |
| 3.                                                                                                                                           | The Command Center would be equipped with state of-the-art equipment's to support monitoring and analysis of video feeds.                                                                                                                     |                     |                                                                  |                                                                     |
| 4.                                                                                                                                           | For the purpose of common viewing of the cameras, video-walls/TV screens will be installed in the office.                                                                                                                                     |                     |                                                                  |                                                                     |
| <b>J-Training and Capacity Building</b>                                                                                                      |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| 1.                                                                                                                                           | 5 days hands on experiences on Video Management System (VMS) and Analytics for 10 persons.                                                                                                                                                    |                     |                                                                  |                                                                     |
| 2.                                                                                                                                           | Preparation of Training Material for operation, upkeep and security related subjects for technical, executive and supervisory staff.                                                                                                          |                     |                                                                  |                                                                     |
| 3.                                                                                                                                           | Preparation of Detailed Standard Operating Procedures (SOP) for police personal to be provided in consultation with head of security.                                                                                                         |                     |                                                                  |                                                                     |
| <b>K -Operations and Maintenance</b>                                                                                                         |                                                                                                                                                                                                                                               |                     |                                                                  |                                                                     |
| 1.                                                                                                                                           | Bidder shall also be responsible for the maintenance and management of entire systems, solutions, application deployed as part of this RFP for a period of 5 year from the Go-Live date in an efficient and effective manner                  |                     |                                                                  |                                                                     |
| 2.                                                                                                                                           | Deploying manpower (minimum 2 persons) for solution maintenance and monitoring support which includes change request management, bug tracking and resolution, production                                                                      |                     |                                                                  |                                                                     |

| Sno | Specification                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification, (mentioning No. & Model of the item) |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
|     | support, performing version and patch updates.                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 3.  | Monitoring of all Equipment, display facilities, furnishing & finishing etc. which shall be monitoring the CCTV system.                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
| 4.  | Annual technical support for all hardware and software components for the O & M period.                                                                                                                                                                                                                                                                                                                                  |                     |                            |                                                                     |
| 5.  | Preventive, repair maintenance and replacement of hardware and software components as applicable under the warranty and AMC services during the contract period.                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 6.  | Recurring refresher trainings for the users and Change Management activities.                                                                                                                                                                                                                                                                                                                                            |                     |                            |                                                                     |
| 7.  | Preventive, repair maintenance and replacement of non-ICT components as applicable under the warranty and AMC services during the contract period.                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 8.  | Overall maintenance of the CCTV solution and continuity of Operations as per SLAs.                                                                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
| 9.  | Submit Quarterly reports as desired by the department.                                                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 10. | Warranty - 5 years                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                            |                                                                     |
|     | <b>L -Other Terms &amp; Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 1.  | Provisioning of required network bandwidth, Internet bandwidth and connectivity at various locations to connect with CCTV Solution shall be done by Bidder.                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| 2.  | The maintenance phase will be for a period of 5 (five) years after Go-Live.                                                                                                                                                                                                                                                                                                                                              |                     |                            |                                                                     |
| 3.  | The successful bidder shall supply, commission and integrate the underlying infrastructure required for running the applications and managing the entire system.                                                                                                                                                                                                                                                         |                     |                            |                                                                     |
| 4.  | The bidder as the part of overall solution should consider latest & innovative technologies and propose the most optimal solution. The solution implemented for this project needs to be highly secure, considering that it is intended to handle sensitive data.                                                                                                                                                        |                     |                            |                                                                     |
| 5.  | Bidder shall be responsible for obtaining all permissions and approvals necessary to install the systems components as per the design.                                                                                                                                                                                                                                                                                   |                     |                            |                                                                     |
| 6.  | During project period, in the event of any damage to CCTV cameras due to accident or due to any other unforeseen circumstances, the bidder shall repair/replace the camera within 15 days of the said incident. Failure to comply with the time period shall attract penalty as mentioned in SLA.                                                                                                                        |                     |                            |                                                                     |
| 7.  | Shelf-life of Hardware should be min. 5 Years.                                                                                                                                                                                                                                                                                                                                                                           |                     |                            |                                                                     |
| 8.  | Manufacturing Date of Hardware Products supplied should be in Year 2022 or later.                                                                                                                                                                                                                                                                                                                                        |                     |                            |                                                                     |
| 9.  | The bidder should have successfully executed and implemented at least one supply order of similar CCTV Project worth of minimum 50% of the Quoted Bid Price, in Central or State Govt/ Govt Undertaking /PSU/ International organizations/Autonomous - Semi Autonomous bodies of Central/State Government in last four years(i.e., 2020-2021, 2021-2022, 2022-2023 and 2023-2024). Copy of PO must be enclosed as proof. |                     |                            |                                                                     |

| Sno         | Specification                                                                                                                                                                                                                                                                                | Compliance in value                                                                                                              | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|
|             | camera for detection of number plates during night-time.                                                                                                                                                                                                                                     |                                                                                                                                  |                            |                                                                     |
| <b>2</b>    | <b>License Plate Detection</b>                                                                                                                                                                                                                                                               |                                                                                                                                  |                            |                                                                     |
| A           | The System shall automatically detect the license plate in the captured video feed in real-time.                                                                                                                                                                                             |                                                                                                                                  |                            |                                                                     |
| B           | The system shall perform OCR (optical character recognition) of the license plate characters (English alpha-numeric characters in standard fonts).                                                                                                                                           |                                                                                                                                  |                            |                                                                     |
| C           | The System shall store JPEG image of vehicle and license plate and enter the license plate number into Postgre SQL database along with date time stamp and site location details.                                                                                                            |                                                                                                                                  |                            |                                                                     |
| D           | System should be able to detect and recognize the English alpha numeric License plate in standard fonts and formats of all vehicles including cars, HCV, and LCV.                                                                                                                            |                                                                                                                                  |                            |                                                                     |
| E           | The system should be able to process and read number plates of vehicles with speed of 180 km/hr and above.                                                                                                                                                                                   |                                                                                                                                  |                            |                                                                     |
| F           | The system shall be robust to variation in License Plates in terms of font, size, contrast and colour and should work with good accuracy.                                                                                                                                                    |                                                                                                                                  |                            |                                                                     |
| G           | The system should do processing locally on the LPU installed at the ANPR camera location/ junction, to avoid any time lag and performance issue due to network disconnection, bandwidth constraints, etc.                                                                                    |                                                                                                                                  |                            |                                                                     |
| <b>3</b>    | <b>Colour Detection</b>                                                                                                                                                                                                                                                                      |                                                                                                                                  |                            |                                                                     |
| A           | The system shall detect the colour of all vehicles in the camera view during daytime and label them as per the predefined list of configured system colours. The system will store the colour information of each vehicle along with the license plate for each transaction in the database. |                                                                                                                                  |                            |                                                                     |
| B           | The system shall have options to search historical records for post event analysis by the vehicle colour or the vehicle colour with license plate and date time combinations.                                                                                                                |                                                                                                                                  |                            |                                                                     |
| <b>4</b>    | <b>Alert Generation</b>                                                                                                                                                                                                                                                                      |                                                                                                                                  |                            |                                                                     |
| A           | The system should have option to input certain license plates according to the hot listed categories.                                                                                                                                                                                        |                                                                                                                                  |                            |                                                                     |
| B           | The system should be able to generate automatic alarms to alert the control room personnel for further action, in the event of detection of any vehicle falling in the Hot listed categories.                                                                                                |                                                                                                                                  |                            |                                                                     |
| <b>5</b>    | <b>Vehicle Log</b>                                                                                                                                                                                                                                                                           |                                                                                                                                  |                            |                                                                     |
| A           | The system shall enable easy and quick retrieval of snapshots, video and other data for post incident analysis and investigations.                                                                                                                                                           |                                                                                                                                  |                            |                                                                     |
| B           | The system should provide advanced and smart searching facility of License Plates. There should be an option of searching number plates almost matching with the specific number entered (up to 1- and 2- character distance).                                                               |                                                                                                                                  |                            |                                                                     |
| <b>6</b>    | <b>Vehicle Make Detection Module</b>                                                                                                                                                                                                                                                         |                                                                                                                                  |                            |                                                                     |
| A           | System should be able to identify the make of the vehicle coming in the field of view of the camera with good accuracy.                                                                                                                                                                      |                                                                                                                                  |                            |                                                                     |
| <b>7</b>    | <b>Vehicle Classification module (Optional)</b>                                                                                                                                                                                                                                              |                                                                                                                                  |                            |                                                                     |
| A           | System should be able to classify the vehicle into LMV, HMV and 2-wheelers.                                                                                                                                                                                                                  |                                                                                                                                  |                            |                                                                     |
| <b>8</b>    | <b>Central Management</b>                                                                                                                                                                                                                                                                    |                                                                                                                                  |                            |                                                                     |
| A           | The Central Management Module shall run on the ANPRS Central Server in control booth. It should be possible to view records and edit hotlists from the Central Server.                                                                                                                       |                                                                                                                                  |                            |                                                                     |
| B           | The system should have reading accuracy of minimum 90% on vehicles and above which are visible by human eye for English alphanumeric number plates.                                                                                                                                          |                                                                                                                                  |                            |                                                                     |
| C           | The proposed system should have the capability to transfer the data to Central Command Centre through proper encryption in real time.                                                                                                                                                        |                                                                                                                                  |                            |                                                                     |
| D           | System Should have capability to generate alerts / alarm If any vehicle changes its designated route.                                                                                                                                                                                        |                                                                                                                                  |                            |                                                                     |
| <b>1.14</b> | <b>Storage</b>                                                                                                                                                                                                                                                                               |                                                                                                                                  |                            |                                                                     |
| <b>S.n</b>  | <b>Parameter</b>                                                                                                                                                                                                                                                                             | <b>Specification</b>                                                                                                             |                            |                                                                     |
| 1           | Form Factor                                                                                                                                                                                                                                                                                  | Rack 2U or higher                                                                                                                |                            |                                                                     |
| 2           | Controller                                                                                                                                                                                                                                                                                   | The proposed NAS should be configured with minimum single controller/Processor.                                                  |                            |                                                                     |
| 3           | Processor                                                                                                                                                                                                                                                                                    | Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor or better                                                                  |                            |                                                                     |
| 4           | Cache/Memory                                                                                                                                                                                                                                                                                 | NAS must be with minimum 64 GB ECC RAM and upgrade up to 128 GB or higher.                                                       |                            |                                                                     |
| 5           | Internal storage capacity                                                                                                                                                                                                                                                                    | 1. Support for SAS/SATAIII 3.5" HDD or SSD.<br>2. Offered NAS solution must support at-least 60 bay 7.2K RPM HDD slot in RAID 5. |                            |                                                                     |
| 6           | Front/Back-end ports                                                                                                                                                                                                                                                                         | 1. Minimum 2 x 1G Ethernet Ports.<br>2. Minimum 2 x 10G SFP+ Ports<br>3. Two or more USB 3.0 Ports.                              |                            |                                                                     |
| 7           | RAID                                                                                                                                                                                                                                                                                         | Must Support for RAID Levels: 0, 1, 5, 6                                                                                         |                            |                                                                     |
| 8           | Authentication Support                                                                                                                                                                                                                                                                       | NAS must support Windows AD authentication.                                                                                      |                            |                                                                     |

| Sno                             | Specification                                                                                                                                                                   |                                                                                                                                                                                   | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------|
| 9                               | Network Client Type Support                                                                                                                                                     | Windows and Linux.                                                                                                                                                                |                     |                            |                                                                     |
| 10                              | Management                                                                                                                                                                      | Must support GUI.                                                                                                                                                                 |                     |                            |                                                                     |
| 11                              | Cables, Driver's connectors and accessories                                                                                                                                     | Must come with require accessories, cable and connector from day one.                                                                                                             |                     |                            |                                                                     |
| 12                              | Power Supply                                                                                                                                                                    | Dual Redundant Hot-Swappable Power Supplies                                                                                                                                       |                     |                            |                                                                     |
| 1.15                            | <b>Air Conditioner (AC)</b>                                                                                                                                                     |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                               | Compressor                                                                                                                                                                      | Rotary or better                                                                                                                                                                  |                     |                            |                                                                     |
| 2                               | Dehumidification                                                                                                                                                                | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 3                               | Remote Control                                                                                                                                                                  | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 4                               | Indoor Temperature Indicator                                                                                                                                                    | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 5                               | Turbo Mode or equivalent                                                                                                                                                        | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 6                               | Auto Air Swing                                                                                                                                                                  | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 7                               | Active Carbon Filter                                                                                                                                                            | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 8                               | Sleep Mode                                                                                                                                                                      | Yes                                                                                                                                                                               |                     |                            |                                                                     |
| 9                               | Capacity                                                                                                                                                                        | 2 Ton                                                                                                                                                                             |                     |                            |                                                                     |
| 10                              | BEE Rating                                                                                                                                                                      | 5 star                                                                                                                                                                            |                     |                            |                                                                     |
| 11                              | AC Type                                                                                                                                                                         | Split                                                                                                                                                                             |                     |                            |                                                                     |
| 12                              | Binding Type                                                                                                                                                                    | Copper                                                                                                                                                                            |                     |                            |                                                                     |
| 13                              | Warranty                                                                                                                                                                        | 5 years or more                                                                                                                                                                   |                     |                            |                                                                     |
| 1.16                            | <b>Television (TV) 43 Inch</b>                                                                                                                                                  |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                               | Display Size                                                                                                                                                                    | 42 inch or above                                                                                                                                                                  |                     |                            |                                                                     |
| 2                               | Native Resolution                                                                                                                                                               | 3840 x 2160 (UHD) 4k or better                                                                                                                                                    |                     |                            |                                                                     |
| 3                               | Brightness                                                                                                                                                                      | Minimum 300 cd/m2 or above                                                                                                                                                        |                     |                            |                                                                     |
| 4                               | Contrast Ratio (Native)                                                                                                                                                         | Minimum 1100:1 or better                                                                                                                                                          |                     |                            |                                                                     |
| 5                               | Viewing Angle                                                                                                                                                                   | 178 * 178                                                                                                                                                                         |                     |                            |                                                                     |
| 6                               | Refresh Rate                                                                                                                                                                    | 60 Hz and above                                                                                                                                                                   |                     |                            |                                                                     |
| 7                               | Input Ports                                                                                                                                                                     | HDMI-2, USB 2.0, RJ45-1                                                                                                                                                           |                     |                            |                                                                     |
| 8                               | Output Ports                                                                                                                                                                    | Digital audio out/ Headphone out                                                                                                                                                  |                     |                            |                                                                     |
| 9                               | Wi-Fi                                                                                                                                                                           | Built-in Wifi required                                                                                                                                                            |                     |                            |                                                                     |
| 10                              | Audio                                                                                                                                                                           | 20W (10W * 2)                                                                                                                                                                     |                     |                            |                                                                     |
| 11                              | Certificates                                                                                                                                                                    | UL/CE/CB & BIS, RoHS                                                                                                                                                              |                     |                            |                                                                     |
| 12                              | Accessories                                                                                                                                                                     | Wall mount, Table stand, Remote and standard cables with complete Installation                                                                                                    |                     |                            |                                                                     |
| 13                              | OEM Warranty                                                                                                                                                                    | 3 Years                                                                                                                                                                           |                     |                            |                                                                     |
| 14                              | Operating System in case of smart TV                                                                                                                                            | Web OS/ Andriod / Tizen                                                                                                                                                           |                     |                            |                                                                     |
| 15                              | OEM Manufacturing date                                                                                                                                                          | OEM Manufacturing 2022 or better                                                                                                                                                  |                     |                            |                                                                     |
| <b>Local Storage</b>            |                                                                                                                                                                                 |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | <b>SD card</b>                                                                                                                                                                  | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. |                     |                            |                                                                     |
|                                 |                                                                                                                                                                                 | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording.                                                        |                     |                            |                                                                     |
| <b>G-Functional requirement</b> |                                                                                                                                                                                 |                                                                                                                                                                                   |                     |                            |                                                                     |
| <b>G 1-Video analytics</b>      |                                                                                                                                                                                 |                                                                                                                                                                                   |                     |                            |                                                                     |
| 1                               | Surveillance system shall have the capability to deploy intelligent video analytics software on any of the selected cameras.                                                    |                                                                                                                                                                                   |                     |                            |                                                                     |
| 2                               | This software shall have the capability to provide various alarms & triggers.                                                                                                   |                                                                                                                                                                                   |                     |                            |                                                                     |
| 3                               | The software shall essentially evolve to automate the suspect activity capture and escalation; eliminate the need of human observation of video on a 24x7 basis.                |                                                                                                                                                                                   |                     |                            |                                                                     |
| 4                               | Analytics software shall bring significant benefit to review the incidences and look for suspicious activity in both live video feeds and recorded footages.                    |                                                                                                                                                                                   |                     |                            |                                                                     |
| 5                               | The software shall have filters to distinguish between humans, animals, vehicles or objects.                                                                                    |                                                                                                                                                                                   |                     |                            |                                                                     |
| 6                               | The video analytics software shall be implemented at the server level in central datacenter compatible with windows server OS or Linux for highest performance and reliability. |                                                                                                                                                                                   |                     |                            |                                                                     |
| 7                               | Various video analytics that shall be offered on identified cameras are:-                                                                                                       |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | a) Loitering /Vandalism around area under observation                                                                                                                           |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | b) Video Loss Alarm                                                                                                                                                             |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | c) People Head Counting or Crowd Recognition                                                                                                                                    |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | d) Camera Tampering/Camera ON/OFF video alarms                                                                                                                                  |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | e) Image Masking- Privacy Protection Video Tracking of Person                                                                                                                   |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | f) Video Tracking of Person/Object in field of view                                                                                                                             |                                                                                                                                                                                   |                     |                            |                                                                     |
|                                 | g) Left/Abandoned Item Detection and Removed Item Detection                                                                                                                     |                                                                                                                                                                                   |                     |                            |                                                                     |

**POLICE HEAD QUARTER, MADHYA PRADESH, BHOPAL****Tender application form**

(To be enclosed with Technical Bid)

**(To be filled up by the tendrer)**

|    |                                                                                                                                                                                                    |  |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1  | Name & Full Address of the firm:                                                                                                                                                                   |  |
| 2  | Registered Office with Address<br>(Copy of registration certificate of firm may be enclosed)                                                                                                       |  |
| 3  | Income Tax PAN Number                                                                                                                                                                              |  |
| 4  | GST Number and Certificate (Last Financial Year)                                                                                                                                                   |  |
| 5  | Whether proprietorship / limited company or Pvt. Ltd. or partnership                                                                                                                               |  |
| 6  | If Single Proprietor, Name & Address of the Proprietor.                                                                                                                                            |  |
| 7  | If Partnership Firm, Name & Address of the Partner.                                                                                                                                                |  |
| 8  | If Private limited or Public company, then name & Address of directors.                                                                                                                            |  |
| 9  | Whether you have any shop or establishment in M.P. If so detailed Addresses of the same.                                                                                                           |  |
| 10 | Name & Addresses of the persons who will face represent the firm while dealing with the Police Head Quarters. (For Signing documentation and demonstration will be authorize by the OEM or Bidder) |  |
| 11 | Turnover for the Last Three Financial Years.<br><br>2022-23<br>2023-24<br>2024-25<br>(Attach only CA certificate with UDIN No.)                                                                    |  |
| 12 | Supplies to Govt. Department in Last Five Financial Year as per GTC                                                                                                                                |  |

SIGNATURE OF THE TENDRER WITH SEAL

Following Declaration duly filled in must be enclosed with the “Technical Bid” as given below :-

**::DECLARATION OF ACCEPTANCE OF TENDER TERMS  
&CONDITIONS ::**

I, (Name of M.D./ Proprietor of firm) \_\_\_\_\_ son of Sri  
\_\_\_\_\_ of M/s \_\_\_\_\_  
(Name of firm and full Address) have read all the Terms and Conditions of the tender given  
above. These are acceptable to me. Earnest Money Paid Online of Rs \_\_\_\_\_  
\_\_\_\_\_ (In words)

I \_\_\_\_\_ (Name of M.D./Proprietor of firm ) son of Shri  
\_\_\_\_\_ of M/s \_\_\_\_\_ (Name of  
firm and full Address) **certify that** we are registered and experienced firm for this work and  
manufacturing/ trading since \_\_\_\_\_ (date). We also certify that we are not black  
listed by any state or central Govt./University/Bank/Corporation/Autonomous institute etc.  
Each page of tender documents is duly signed with seal by us. We undertake to adhere the  
ethical commitment as required in this tender mandated by the law.

Place : \_\_\_\_\_

Date : \_\_\_\_\_

**Signature** \_\_\_\_\_

**Name** \_\_\_\_\_

**& Seal of the Tenderer (Supplier)**

( On the Letterhead of the Participant bidder firm/ Company)

**Undertaking of Registration Numbers**

I \_\_\_\_\_ S/o Shri \_\_\_\_\_ Resident of

Being Director / Proprietor / Partner of M/S \_\_\_\_\_ GST  
Registration No. is \_\_\_\_\_ Income Tax PAN No. is \_\_\_\_\_ Hereby give  
consent to the office of Assistant Inspector General of Police, (General) Special Branch, Police  
Headquarter Bhopal to deduct from our Bills whatever Amount is payable by us on account  
of the necessary Tax dues .

Place :- \_\_\_\_\_

Date :- \_\_\_\_\_

Signature:- \_\_\_\_\_

Name:- \_\_\_\_\_

Post :- \_\_\_\_\_

Seal :- \_\_\_\_\_

Signature of Bidder

**TENDER FORM****(On the Letterhead of the OEM)****(To be submitted in Envelop / Part - A, must be duly sealed, signed and uploaded)****AUTHORITY LETTER FROM ORIGINAL EQUIPMENT  
MANUFACTURER**

Date .....

To,

A.I.G (General)  
SB PHQ Bhopal, MP

Ref. : Tender No.

Dear Sir,

I/We ..... [manufacturer] hereby certify that M/s ..... [tenderer] is an authorized..... [relationship] of ..... [manufacturer] and they are authorized to represent .....[manufacturer] in submitting their bid for ..... [product & services] and conclude the contract with you.

I/We am/are the Original Equipment Manufacturer in respect of the products listed below.

| Sr. No. | Product Name | Remarks |
|---------|--------------|---------|
| 1.      |              |         |
| 2.      |              |         |
| 3.      |              |         |

We certify that the Equipment/Furniture provided by us are not end of life products and the maintenance support for the proposed products will be provided till the warranty period.

We ..... [Manufacturer] are confident of M/s [tenderer's] ability to represent us and provide full support till the warranty period.

We ..... [manufacturer] have authorized ..... to quote for this tender .

Signature of Authorized Person

Name .....

Designation .....

Seal

Date :

Place :

**TENDER FORM**

**(On the Letterhead of the Participant bidder firm/ Company)**  
(To be submitted in Envelop / Part A, must be duly sealed, signed and  
uploaded)

**COMMITMENT LETTER FOR SUPPORT FROM ORIGINAL  
EQUIPMENT MANUFACTURER**

Date .....

To,

A.I.G (General)  
SB PHQ Bhopal, MP

Ref : Tender No.:

Dear Sir,

I / We ..... hereby commit & confirm that I / we will provide onsite, free of cost service, maintenance and technical support, will keep sufficient stock of spare parts along with spare during Warranty period defined in tender document. I / We will provide onsite support through local office / support centre / arrangement in Madhya Pradesh and keep it operational till the duration of warranty. The address & contact number of the local office / support centre / arrangement is as mentioned below:

Signature of Authorized Person

Name .....

Designation .....

Seal

Date :

Place :

**TENDER ACCEPTANCE LETTER**  
**(To be given on Company Letter Head)**

Date:

To,

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: \_\_\_\_\_

Name of Tender / Work: -

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/organization too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract , without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,  
 (Signature of the Bidder, with Official Seal)

**PRICE BID UNDERTAKING**

From: (Full name and address of the Bidder) \_\_\_\_\_

\_\_\_\_\_

To, \_\_\_\_\_

Dear Sir/Madam,

1. I submit the Price Bid for \_\_\_\_\_ and related activities as envisaged in the Bid document.
2. I have thoroughly examined and understood all the terms and conditions as contained in the Bid document, and agree to abide by them.
3. I offer to work at the rates as indicated in the price Bid, inclusive of all applicable taxes except Service Tax.

Yours Faithfully,  
Signature of authorized  
Representative, with official seal

## BANK GUARANTEE PROFORMA FOR FURNISHING PERFORMANCE SECURITY

1. In consideration for the President of India (hereinafter called "the Government") having agreed to exempt.....(hereinafter called "the said Contractor(s)" from the demand, under the terms and conditions of an Agreement dated.....made between.....and.... of Performance Security for the due fulfillment of the said Contractor(s) of the terms and conditions contained in the said Agreement, on production of Bank Guarantee for Rupees..... (Rupees.....(indicated the name of the Bank) at the request of.....contractor(s) do hereby undertake today to the Government an amount not exceeding Rupees..... against any loss or damage caused to or suffered would be caused to or suffered by the Government by reason of any breach of the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We.....do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Government stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Government by reason of breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the contractor(s)'s failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rupees....

3. We undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s)/supplier(s) in any suit or proceeding pending before any Court or Tribunal relating thereto liability under this present being absolute and unequivocal. The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the contractor(s)/supplier(s) shall have no claim against us for making such payment.

4. We,.....further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claim satisfied or discharged or till.....that the terms and conditions of the said Agreement

e- have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the... guarantee thereafter.

5. We,.....further agree with the Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. Notwithstanding anything contained herein above our liability under the guarantee is restricted to Rs. \_\_\_\_\_ and shall remain in force until \_\_\_\_\_. Unless a claim or suit under this guarantee is filled with us on or before \_\_\_\_\_. ALL OUR RIGHTS UNDER THE

GUARANTEE SHALL BE FORFEITED and the Bank shall be relieved and discharged from all liabilities therein.

7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s)/supplier(s).

8. We, .....lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Government in writing.

**Dated the..... of.....2025**  
**for..... (indicate the name of Bank)**  
**Signature.....**  
**Name of the Officer..... (in Block**  
**Capitals)**  
**Designation and Code No. ....**  
**Name of the Bank and Branch.....**

**Proforma for Financial Bid**

| No | Name of Items | Quantity | Make/<br>Model | GST % | Unit Rate<br>including all<br>taxes etc. | Total Cost<br>including all<br>taxes etc. |
|----|---------------|----------|----------------|-------|------------------------------------------|-------------------------------------------|
| 1  | 2             | 3        | 4              | 5     | 6                                        | 7                                         |
|    |               |          |                |       |                                          |                                           |

Note:- L1 will be decided Per Unit /Packet/Set/Nos Rate Including all Taxes, etc.

**Special Branch, Madhya Pradesh Bhopal**  
**Specification of CCTV Surveillance System for Raj Bhawan**

|                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A- Scope of Work</b>                                                                                                                                                                                                                                                                                                          |
| 1. Madhya Pradesh Special Branch is in the process of provisioning of CCTV surveillance system at "Raj Bhawan Bhopal".                                                                                                                                                                                                           |
| 2. Madhya Pradesh Special Branch intend to select System Integrators (SIs) for Supply, Installation, Testing, Commissioning, Migration, Operations and Management of CCTV surveillance system, on premises infrastructure including On-site manpower for five years at Raj Bhawan with a definite Service Level Agreement (SLA). |
| 3. The selected bidder shall ensure the successful implementation of the proposed solutions as well as provide capacity building support.                                                                                                                                                                                        |
| 4. Any functionality not expressly stated in this document but necessary to meet the needs of the successful operations of the system shall essentially be under the scope of bidder and for that no extra charges shall be admissible.                                                                                          |
| 5. Bidder shall implement and deliver the systems and components which are described in this RFP.                                                                                                                                                                                                                                |
| <b><u>B- Objective</u></b>                                                                                                                                                                                                                                                                                                       |
| 1. VIP Security and Access Control                                                                                                                                                                                                                                                                                               |
| 2. Prevention of Crime                                                                                                                                                                                                                                                                                                           |
| 3. Analytics for Command and Control Centre                                                                                                                                                                                                                                                                                      |
| <b><u>C-Site Survey</u></b>                                                                                                                                                                                                                                                                                                      |
| 1. Bidders will be responsible for site survey to identify and analyse the exact situation of the site.                                                                                                                                                                                                                          |
| 2. Bidders should analyse the site requirement, its present status, applications hosting plan, the existing infrastructure and any other relevant details before designing the CCTV solution.                                                                                                                                    |
| 3. Before doing site survey permission shall be obtained from the user agency.                                                                                                                                                                                                                                                   |
| <b><u>D- Supply &amp; Installation</u></b>                                                                                                                                                                                                                                                                                       |
| Bidder shall use industry leading practices during the implementation w.r.t positioning and mounting the cameras, poles and junction boxes.                                                                                                                                                                                      |
| <b>Check-points that need to be adhered to by the Bidder while installing / commissioning cameras are as follows:-</b>                                                                                                                                                                                                           |
| 1. Ensure surveillance objective is met while positioning the camera such that the required field of view is being captured as finalized in field survey.                                                                                                                                                                        |
| 2. Ensure camera is protected from the on-field challenges of weather, physical damage and theft.                                                                                                                                                                                                                                |
| 3. Make proper adjustments to have the best possible image / video captured.                                                                                                                                                                                                                                                     |
| 4. Ensure that the pole is well placed for vibration resistance adhering to the road safety norms.                                                                                                                                                                                                                               |
| 5. Collusion preventive barriers around the junction box & pole foundation in case it's installed in collision prone place.                                                                                                                                                                                                      |
| 6. Appropriate branding or colour coding (Police/Authority Branding) of poles and junction boxes, to warn mischief mongers against tampering with the equipment at the junction.                                                                                                                                                 |
| 7. Bidder shall arrange power supply for the proposed solution at all desired locations.                                                                                                                                                                                                                                         |
| 8. Bidder shall comply with lightning-protection and anti -interference measures for system structure and equipment's.                                                                                                                                                                                                           |
| 9. Earthing should be done for the entire power system.                                                                                                                                                                                                                                                                          |
| 10. Bidder shall provide the Junction Boxes, posts and cantilever to mount the field sensors like the cameras, active network components, controller and power backup (UPS) at all field locations, as per the specifications.                                                                                                   |
| 11. Bidder shall provide standardized cabling for all devices and subsystems.                                                                                                                                                                                                                                                    |

12. Bidder shall ensure the installation of all necessary cables and connectors between the field sensors /devices assembly, outstation junction box, for pole mounted field sensors/devices the cables shall be routed down the inside of the pole and through underground duct to the outstation cabinet.
13. All cables shall be clearly labeled with indelible indications that can clearly be identified by maintenance personnel. The proposed cables shall meet the valid directives and standards.
14. Cabling must be carried out per relevant BIS standards. All cabling shall be documented in a cable plan by Bidder.
15. The Bidder shall be responsible to provide networking solution and may assume that data rate of 5 Mbps per camera required at various locations.
16. Bidder will be required and should do component sizing accordingly to connect all locations.
17. Surge Protection devices shall be provided for outdoor equipment like cameras, racks, switches on both side of network, power source at Field rack, switch and control room racks, Ethernet+PoE for junction equipment's and Control room equipment's.

#### **E-BOQ**

The BOQ mentioned below are indicative and minimal. Bidders will be responsible for the site survey before proposing CCTV solution. The exact quantity and requirement shall be proposed as part of the technical bid of the Bidder.

| S.n | Item                                                                                                           | Quantity                                                                                            |
|-----|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1   | 4MP IR ANPR Camera with License and Software                                                                   | 10                                                                                                  |
| 2   | 4MP IR Bullet Outdoor Network Camera                                                                           | 261                                                                                                 |
| 3   | 4 MP IR PTZ Camera                                                                                             | 5                                                                                                   |
| 4   | Video management system                                                                                        | 1                                                                                                   |
| 5   | Video analytics license @ cameras (Bullet/PTZ)                                                                 | 30                                                                                                  |
| 6   | Network switch L2 @ Control room                                                                               | 1                                                                                                   |
| 7   | Outdoor industrial grade 8 port accessories                                                                    | As per site requirement                                                                             |
| 8   | Other network switch & accessories (If required)                                                               | As per site requirement                                                                             |
| 9   | Computer & storage equipment & accessories                                                                     | As per site requirement                                                                             |
| 10  | Network equipments & Accessories                                                                               | As per site requirement                                                                             |
| 11  | Junction Box                                                                                                   | As per site requirement                                                                             |
| 12  | Surge protection device                                                                                        | As per site requirement                                                                             |
| 13  | Outdoor armored rated cat 6 cable                                                                              | As per site requirement                                                                             |
| 14  | Double jacket cat 6 cable for indoor                                                                           | As per site requirement                                                                             |
| 15  | Optical fibre cable (If required)                                                                              | As per site requirement                                                                             |
| 16  | Online UPS (1 Hr. backup) for all PTZ, Dome and Bullet cameras                                                 | As per site requirement                                                                             |
| 17  | Online UPS (1 Hr. backup) for control room (N+1) redundant.                                                    | 1                                                                                                   |
| 18  | Video wall/4K Monitor 43" bezel less for monitoring with mounting accessories.                                 | 1 Set of 86 inch Videowall/ 4 no. (4k monitor 43" Bezel less for monitor with mounting accessories) |
| 19  | Desktop for video wall/4K Monitor 43"                                                                          | As per site requirement                                                                             |
| 20  | Other software's (If required)                                                                                 | As per site requirement                                                                             |
| 21  | Installation and civil work with poles and masts and other required accessories                                | As per site requirement                                                                             |
| 22  | Network rack with furniture for all equipments at control room remote locations with complete electric fitting | As per site requirement                                                                             |
| 23  | Air conditioner 2 ton                                                                                          | 1                                                                                                   |
| 24  | Network & power cables & accessories                                                                           | As per site requirement                                                                             |

| <b>Bids should be submitted as per the Preferred OEM table for each item mentioned below-</b> |                                                                                                                                                                                                                                                     |                                                     |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>S.n.</b>                                                                                   | <b>Component/Item</b>                                                                                                                                                                                                                               | <b>OEM List</b>                                     |
| 1                                                                                             | Electrical Cables & Accessories                                                                                                                                                                                                                     | Anchor, Havells, Finolex, RR Kabel, Polycab         |
| 2                                                                                             | Network Cables & Accessories                                                                                                                                                                                                                        | RR Kabel, Havells, Dlink, HPE, Dell, Netgear, Cisco |
| 3                                                                                             | Network Equipments & Accessories like Switch etc                                                                                                                                                                                                    | Belden, Cisco, Arista, Juniper, Dell, HPE           |
| 4                                                                                             | AC                                                                                                                                                                                                                                                  | LG/Samsung/Voltas/Carrier/Daikin/Bluestar/O-General |
| 5                                                                                             | Surge protection device                                                                                                                                                                                                                             | Citel, MTL, DEHN                                    |
| 6                                                                                             | Storage solution                                                                                                                                                                                                                                    | Dell, HPE, Cisco                                    |
| 7                                                                                             | Workstation                                                                                                                                                                                                                                         | HPE, Dell, Lenovo                                   |
| 8                                                                                             | TV                                                                                                                                                                                                                                                  | LG, Samsung, Sony                                   |
| 9                                                                                             | Videowall                                                                                                                                                                                                                                           | Delta, Barco, LG, Samsung                           |
|                                                                                               | <b>The OEM &amp; vendors are requested to forward information of the product (Make &amp; Model) which they can offer and also forward correct specification of there system against each parameter along with complied or not complied remarks.</b> |                                                     |

#### **F - Technical Specifications**

The specifications indicated below are minimal specifications and the vendor may suggest higher /better / latest specifications, so as to insure the optimal performance of the system.

#### **4MP IR Bullet Outdoor Network Camera/ANPR Camera**

| <b>Parameter</b>                             | <b>Specification</b>                                                                                         |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Image sensor & Resolution                    | 1/3" or better CMOS Progressive Scan & Minimum (4 MP) or better                                              |
| Electronic Shutter speed                     | 1/3 to 1 / 10,000 s or better                                                                                |
| Min illumination/ light sensitivity (Colour) | Minimum 0.5 lux (30 IRE, F 1.2) or better                                                                    |
| Min illumination/ light sensitivity (B/W)    | Minimum 0.2 lux (30 IRE, F 1.2) or better                                                                    |
| Wide Dynamic Range                           | Minimum 85 Db or better                                                                                      |
| Backlight Compensation                       | ON/OFF                                                                                                       |
| IRIS Control                                 | Automatic                                                                                                    |
| Focus                                        | Autofocus                                                                                                    |
| Automatic Gain Control                       | Auto / Manual                                                                                                |
| Colour, Brightness, Contrast                 | functionality Required                                                                                       |
| Frame Rate                                   | 30 FPS for 4MP at H.264 Compression or better                                                                |
| Varifocal Lens Bullet                        | 2.7-13 FPS for 4MP at H.264 Compression or better                                                            |
| Varifocal Lens ANPR                          | IP 67                                                                                                        |
| <b>Video</b>                                 |                                                                                                              |
| Day and Night functionality                  | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level. |
| IR illuminator                               | Illuminator may be Internal or external & visibility should be at least 25 m                                 |
| Video Resolution                             | Minimum 4 MP                                                                                                 |
| Video Streams                                | Individually configurable 02 video streams (H.264, MJPEG) or better                                          |
| Intelligent Video                            | Motion detection, Tampering Alert                                                                            |
| <b>Audio</b>                                 |                                                                                                              |

|                                             |                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio support                               | Required                                                                                                                                                                                                                                                                                                        |
| Audio Compression                           | Minimum G.711 or better                                                                                                                                                                                                                                                                                         |
| <b>Network &amp; Interface</b>              |                                                                                                                                                                                                                                                                                                                 |
| Interface                                   | RJ-45 for 10/100 base-T Ethernet                                                                                                                                                                                                                                                                                |
| Upgrade                                     | Through web browser , online, firmware upgrade                                                                                                                                                                                                                                                                  |
| Network Protocols support                   | IPv6, TCP/IP, HTTP, , DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols/Should meet all functional requirement of the project                                                                                                                                                                                     |
| Network disconnection Alarm                 | Required                                                                                                                                                                                                                                                                                                        |
| Compliance                                  | ONVIF Profile S or better                                                                                                                                                                                                                                                                                       |
| <b>Security</b>                             |                                                                                                                                                                                                                                                                                                                 |
| Password Protection                         | Required                                                                                                                                                                                                                                                                                                        |
| HTTPS encryption                            | Required                                                                                                                                                                                                                                                                                                        |
| IEEE 802.1X                                 | Required                                                                                                                                                                                                                                                                                                        |
| <b>General</b>                              |                                                                                                                                                                                                                                                                                                                 |
| Operational temperature °C and humidity     | Should be able to withstand Bhopal weather (0 to 50 degree Celsius)                                                                                                                                                                                                                                             |
| IP rating                                   | IP67                                                                                                                                                                                                                                                                                                            |
| Certifications                              | UL and BIS and CE/ EN/ FCC                                                                                                                                                                                                                                                                                      |
| Power                                       | PoE / PoE+ and 12VDC/24VDC/230VAC<br>Vendor has to supply suitable power for the cameras.                                                                                                                                                                                                                       |
| Local Storage/SD card                       | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card.<br>After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording. |
| <b>4 MP IR PTZ Camera</b>                   |                                                                                                                                                                                                                                                                                                                 |
| <b>Parameter</b>                            | <b>Specification</b>                                                                                                                                                                                                                                                                                            |
| Image sensor & Resolution                   | 1 / 2.8" or better CMOS Progressive Scan and 4 mega pixel                                                                                                                                                                                                                                                       |
| Focal Length                                | 3.5 to 94 mm or better                                                                                                                                                                                                                                                                                          |
| Zoom                                        | 20 x Optical or better                                                                                                                                                                                                                                                                                          |
| Electronic Shutter                          | 1/1 to 1 / 10,000 s or better                                                                                                                                                                                                                                                                                   |
| Min illumination/ light sensitivity(Colour) | 0.5 lux (30 IRE, F 1.6) or better                                                                                                                                                                                                                                                                               |
| Min illumination/ light sensitivity (B/W)   | 0.2 lux (30 IRE, F 1.6) or better                                                                                                                                                                                                                                                                               |
| Wide Dynamic Range                          | Minimum 85 Db or better                                                                                                                                                                                                                                                                                         |
| Backlight Compensation                      | ON/OFF                                                                                                                                                                                                                                                                                                          |
| IRIS Control                                | Automatic                                                                                                                                                                                                                                                                                                       |
| Focus                                       | Autofocus                                                                                                                                                                                                                                                                                                       |
| Automatic Gain Control                      | Auto / Manual                                                                                                                                                                                                                                                                                                   |
| Frame Rate                                  | 30 FPS for 4MP at H.264 Compression or better                                                                                                                                                                                                                                                                   |
| <b>Video</b>                                |                                                                                                                                                                                                                                                                                                                 |
| Day and Night functionality                 | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level                                                                                                                                                                                                     |
| Video Resolution                            | 4 Mega pixel or better                                                                                                                                                                                                                                                                                          |
| IR illuminator                              | Internal / External Illuminator & visibility should be at least 50 m: IR Illuminator should cover 360 degree area.                                                                                                                                                                                              |

|                                       |                  |                                                                                                                                                                                           |
|---------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video Streams                         |                  | Individually configurable 02 video streams (H.264, MJPEG);                                                                                                                                |
| Intelligent Video                     |                  | Motion detection, Tampering alert                                                                                                                                                         |
| Electronic Image Stabilization        |                  | Required                                                                                                                                                                                  |
| <b>PTZ Function</b>                   |                  |                                                                                                                                                                                           |
| PAN TILT Range                        |                  | 360° continuous pan & 90° tilt range                                                                                                                                                      |
| PAN TILT Speed                        |                  | 0.5° to 150°/sec for panning & 0.5° to 100°/sec for tilting & Up to 300°/s for Preset speed.                                                                                              |
| Presets                               |                  | Minimum 150 Preset Points                                                                                                                                                                 |
| Preset Tour & Pattern                 |                  | Required                                                                                                                                                                                  |
| Privacy Mask                          |                  | 08 Zones or better                                                                                                                                                                        |
| <b>Compression</b>                    |                  |                                                                                                                                                                                           |
| MJPEG                                 |                  | Required                                                                                                                                                                                  |
| H.264                                 |                  | Required                                                                                                                                                                                  |
| <b>Audio</b>                          |                  |                                                                                                                                                                                           |
| Audio support                         |                  | Required                                                                                                                                                                                  |
| Audio Compression                     |                  | G.711 or better                                                                                                                                                                           |
| <b>Network &amp; Interface</b>        |                  |                                                                                                                                                                                           |
| Interface                             |                  | RJ-45 for 10/100 base-T Ethernet                                                                                                                                                          |
| Upgrade                               |                  | Through web browser , online, firmware upgrade                                                                                                                                            |
| Network Protocols support             |                  | TCP/IP, HTTP, DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols                                                                                                                             |
| Alarm Event                           |                  | Events / alerts send via FTP, HTTP, email, Pre-Post alarm video buffering.                                                                                                                |
| Network disconnection Alarm           |                  | Required                                                                                                                                                                                  |
| Compliance                            |                  | ONVIF Profile S or higher                                                                                                                                                                 |
| <b>Security</b>                       |                  |                                                                                                                                                                                           |
| Password Protection                   |                  | Required                                                                                                                                                                                  |
| HTTPS encryption                      |                  | Required                                                                                                                                                                                  |
| IEEE 802.1X                           |                  | Required                                                                                                                                                                                  |
| <b>General</b>                        |                  |                                                                                                                                                                                           |
| Operational temperature °C & Humidity |                  | Should withstand Bhopal weather (0 to 50 degree Celsius)                                                                                                                                  |
| IP rating                             |                  | IP67                                                                                                                                                                                      |
| Power                                 |                  | PoE / PoE+ and 12VDC/24VDC/ 230VAC<br>Vendor has to supply suitable power for the cameras.                                                                                                |
| Certifications                        |                  | UL and BIS and CE/EN/FCC                                                                                                                                                                  |
| <b>Local Storage/SD card</b>          |                  | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card.         |
|                                       |                  | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording.                                                                |
| <b>1.1</b>                            | <b>Server</b>    |                                                                                                                                                                                           |
| <b>S.n</b>                            | <b>Parameter</b> | <b>Min. Specification</b>                                                                                                                                                                 |
| 1                                     | Processor        | 2 x Intel Xeon latest generation processors. 64-bit x86 processor fully binary compatible with 64/32-bit applications. Cores: 2 x 16-core (minimum) with a minimum clock rate of 2.4 GHz. |

|            |                                       |                                                                                                                                                                                                                                                     |
|------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2          | Memory                                | Minimum 64GB of the latest DDR4 memory using minimum 16GB DIMMs or higher. Advanced ECC with multi-bit error protection. The memory should have native capability of identifying and reporting the densities of the memory installed in the server. |
| 3          | HDD Controller                        | 12 Gbps SAS/NVMe RAID controller supporting RAID 0, 1, 5, and 6 with a minimum of 2GB battery-backed cache.                                                                                                                                         |
| 4          | HDD                                   | 2 x 1.92TB SSD hot-swappable or higher.                                                                                                                                                                                                             |
| 5          | Network Controller                    | Network controller: minimum 4 x 1Gbps ports and 2 x 10/25Gbps ports with 10Gbps transceivers.                                                                                                                                                       |
| 6          | Bays                                  | Minimum 8 hot-swappable drive bays.                                                                                                                                                                                                                 |
| 7          | System Chassis                        | Rack mount, 2U (maximum), redundant hot-swappable power supply with platinum efficiency.                                                                                                                                                            |
| 8          | OS Certificate                        | Certification for the latest server versions of Windows and Linux.                                                                                                                                                                                  |
| 9          | IDC Ranking                           | OEM should be ranked within the top 3 as per the IDC report for any one of the previous four quarters in India for servers.                                                                                                                         |
| <b>1.2</b> | <b>Workstation</b>                    |                                                                                                                                                                                                                                                     |
| <b>S.n</b> | <b>Parameter</b>                      | <b>Min. Specification</b>                                                                                                                                                                                                                           |
| 1          | Processor Make                        | Intel                                                                                                                                                                                                                                               |
| 2          | Processor Generation                  | Intel Core i7, 10th Generation or higher                                                                                                                                                                                                            |
| 3          | Number of Cores                       | 8 or above                                                                                                                                                                                                                                          |
| 4          | Cache (MB)                            | 16 or above                                                                                                                                                                                                                                         |
| 5          | Processor base Frequency (GHz)        | 2.90 GHz or above                                                                                                                                                                                                                                   |
| 6          | Motherboard                           | Intel / OEM                                                                                                                                                                                                                                         |
| 7          | Type of RAM                           | DDR4 or better                                                                                                                                                                                                                                      |
| 8          | RAM Size (GB)                         | 8 GB or above                                                                                                                                                                                                                                       |
| 9          | RAM Speed (MHz)                       | DDR4-2666 or better                                                                                                                                                                                                                                 |
| 10         | RAM Expandability up to               | 64 GB or above                                                                                                                                                                                                                                      |
| 11         | Type of Hard Disk Drive               | HDD / SSD or Both                                                                                                                                                                                                                                   |
| 12         | Capacity of HDD (GB)                  | (a) 512 SSD / 1000 SSD or (b) 512 SSD + 1TB HDD                                                                                                                                                                                                     |
| 13         | Operating System (Factory Pre-Loaded) | Windows 11 Professional 64 bit or latest                                                                                                                                                                                                            |
| 14         | Input Devices                         | Standard USB Keyboard - Wired                                                                                                                                                                                                                       |
| 15         | Mouse                                 | Optical USB Mouse - Wired                                                                                                                                                                                                                           |
| 16         | Ports                                 | Four or more                                                                                                                                                                                                                                        |
| 17         | HDMI /VGA or both                     | Yes                                                                                                                                                                                                                                                 |
| 18         | Other                                 | Microphone, Stereo headphone and other standard port                                                                                                                                                                                                |
| 19         | Networking                            | Ethernet - Yes - 10/100/1000                                                                                                                                                                                                                        |
| 20         | Display                               | Diagonal Viewing Size (Inch) - 15.6 Inches or above.                                                                                                                                                                                                |
| 21         | Resolution                            | 1920 x 1080 FHD or above                                                                                                                                                                                                                            |
| 22         | Input Devices                         | Standard USB Keyboard                                                                                                                                                                                                                               |
| 23         | Mouse                                 | Optical USB Mouse                                                                                                                                                                                                                                   |
| 24         | Anti-Virus                            | To be included with 5 years licence                                                                                                                                                                                                                 |
| 25         | BEE / Energy Star for the given Model | Yes                                                                                                                                                                                                                                                 |
| 26         | Certifications                        | (FCC/CE/CB), BIS and RoHS                                                                                                                                                                                                                           |
| 27         | MS Office                             | Factory preloaded MS Office 2021 (Home and business life                                                                                                                                                                                            |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                              |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | time)                                                        |
| 28         | Warranty                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | On Site OEM Warranty (Year) - 5 Years comprehensive warranty |
| <b>1.3</b> | <b>VMS Software</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                              |
| 1          | <b>The system should be easy to install, learn, operate and manage:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                              |
|            | The VMS must have rich user interface that provides one-click access, drag-drop, menu, customizable GUI etc. to enhance operational efficiency in daily tasks and maintain. The VMS shall have ability to respond fast & shall be applicable to all processes, functions, features, and screens of a video management system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 2          | Simple, clear documentation including User Guides (how to use the product) and Technical Reference Manuals (quick reference on functions and procedures) shall be submitted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                              |
| 3          | <b>Scalability:</b> The proposed video management system shall be able to support any no. of CCTV Cameras so as to accommodate any future expansion. System shall support viewing of video from multiple locations and by multiple users. The VMS shall support 500 or more cameras. Well documented Software Development Kit (SDK): The SDK should include a rich, easy-to-use Application Programming Interface (API) support if required. Input and output support: The VMS shall have ability to receive and support recording based on inputs or alarms. Event management: The VMS shall have ability to enforce custom settings for event detection, alarm notification, recording, input/out (I/O) control, and other features in response to events. The alarm management module shall support graphical displays with interactive icons to display the status of the cameras & other inputs. Support for standard protocols: The VMS shall have ability to maintain independence from any one vendor & shall support open standard protocol i.e. ONVIF profile S |                                                              |
| 4          | Smooth software upgrade path for support of new devices, drivers and operating systems. System should be able to implement software upgrades without requiring all hardware components to be reconfigured. System should provide Database Server Hot Redundancy from day one, Camera Server Hot Redundancy, and automatic fault tolerance for robust system uptime and Distributed database and video storage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |
| 5          | On screen help and instructions: The system should provide help and assistance through help guide on same station.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |
| 6          | User management with user roles & privileges right to view, acknowledge alarms shall be available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                              |
| 7          | Centrally controlled user management - Users, roles, rules and privileges should be stored on the central VMS server allowing any authorized user to log into any workstation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |
| 8          | <b>Recording Server:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                              |
|            | · The System shall not restrict the number of recording servers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                              |
|            | · Shall support dual streaming                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |
|            | · Shall allow each camera to be viewed independently by client viewer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |
|            | · Recording from connected cameras shall be stored in NAS/SAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
|            | · Shall support multiple storage form                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                              |
|            | · Shall support recording in all resolution at desired FPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              |
|            | · Shall support video cum audio recording                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                              |
| 9          | The VMS shall have ability to configure access privileges and other parameters for all users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 10         | Support for event based or schedule-based recordings to optimize bandwidth and storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |
| 11         | Customizable recording retention period for specific camera.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                              |
| 12         | <b>Remote Users:</b> Should support at least 10 remote users via network/web browser/client software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                              |
| 13         | Wizard driven installation of software updates for VMS server and client machines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                              |
| 14         | Support and configuration options for virtual matrix.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                              |
| 15         | Copy or Clone option to install new device based on already configured device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |
| 16         | The VMS shall have ability to easily install, configure, modify, search and remove surveillance devices with automatic discovery of IP devices using external tool or in built options.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                              |

|    |                                                                                                                                                                                                                                                                                                                                                                                                       |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17 | Option to install other devices like Analog cameras, encoders, microphone-speakers.                                                                                                                                                                                                                                                                                                                   |
| 18 | The VMS shall have ability to logically group devices based on installation location & device type.                                                                                                                                                                                                                                                                                                   |
| 19 | The VMS shall have ability to search and view device(s) based on standard criteria like Camera ID/ Name, Location, Group, etc                                                                                                                                                                                                                                                                         |
| 20 | The VMS shall have ability to enforce access privileges (View /Add /Edit/ Remove) to device(s).                                                                                                                                                                                                                                                                                                       |
| 21 | The VMS shall have ability to draw and configure map of surveillance facility, choose back-ground images, User-definable symbols (for deployed devices)and programmable functions, e.g., hyperlinks, controlling video feed, initialling alarms etc.                                                                                                                                                  |
| 22 | Remote firmware updates notifications and wizard driven installation shall be part of camera feature.                                                                                                                                                                                                                                                                                                 |
| 23 | Provision for independent storage settings for individual camera feeds.                                                                                                                                                                                                                                                                                                                               |
| 24 | The VMS shall have ability to configure multiple streams with different quality parameters e.g. Codec (H.264, MPEG, JPEG) , resolution, frame & bit rate etc.                                                                                                                                                                                                                                         |
| 25 | Support for full duplex audio                                                                                                                                                                                                                                                                                                                                                                         |
| 26 | a) The VMS shall have ability to create and assign pre-configured views/layouts for monitoring including features like:                                                                                                                                                                                                                                                                               |
|    | b) The VMS shall support Sequencing in Views, whereby the pre-sets of PTZ cameras as well as fixed cameras are cycled on a timed basis, within a single view or within the view port of a multiple camera view.                                                                                                                                                                                       |
|    | c) Linking images, maps a view,                                                                                                                                                                                                                                                                                                                                                                       |
|    | d) The VMS shall support sequence views. A sequence view consists of a single camera view, which can be cycled on a time basis. Pan-tilt-zoom cameras, which support pre-set positions, can have these pre-sets cycled on a time basis. In this way an operator can view a variety of pre-sets on a series of PTZ cameras. Fixed cameras can also be included in the sequence and cycled accordingly. |
|    | e) Special views for widescreen monitors,                                                                                                                                                                                                                                                                                                                                                             |
|    | f) Updating a view only on motion detection,                                                                                                                                                                                                                                                                                                                                                          |
|    | g) Granting or revoking permission to use the view etc.                                                                                                                                                                                                                                                                                                                                               |
| 27 | Setup Virtual matrix on operator workstation monitor                                                                                                                                                                                                                                                                                                                                                  |
| 28 | Basic recording options [Full, Scheduled recoding, Motion detection recording, external/internal hardware or software events / trigger-based recording]                                                                                                                                                                                                                                               |
| 29 | Advanced recordings options [Video only, Video plus Audio, Retention rules, Archive/back-up rules, and storage limits report set.                                                                                                                                                                                                                                                                     |
| 30 | The VMS shall have ability to configure, store and track both pre- and post-event recordings. The pre-post event time should be configurable.                                                                                                                                                                                                                                                         |
| 31 | PTZ configuration including pre-sets, patterns, patrolling, masking, priority and permissions should be possible from camera web page                                                                                                                                                                                                                                                                 |
| 32 | The VMS shall have ability to support operations from Web/IE client, Windows Client /Mobile devices etc. Popup display on the screen in case of any event/alarm/threshold etc.                                                                                                                                                                                                                        |
| 33 | Multiple monitor support: The system should allow connecting minimum 2 or more as per proposed Solution multiple monitors on single client workstation (loaded with suitable graphics card) and display different contents on each of the connected monitor.                                                                                                                                          |
| 34 | All panes / tiles should indicate mode (live or recoded), source (camera name/location) and date/time and applied quality information (FPS, CODEC). A matrix view should support minimum 2x2, 3x3, 4x4 on small monitors and 9x9 formats on video wall and any number of multiple screen divisions.                                                                                                   |
| 35 | PTZ controls: When PTZ is deployed and enabled, system should offer a separate control panel for PTZ operations. The control panel should include list of pre-sets, patterns, tours, eight directional & home positions and zoom-in & zoom-out buttons. A dedicated joystick can also be used for PTZ operations.                                                                                     |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 36 | PC keyboard shortcut keys: Along with menu-driven interface, a VMS should also support shortcut keys to help operators quickly switch between different cameras/matrix views.                                                                                                                                                                                                                                                              |
| 37 | <b>Snapshots:</b> System should allow creating a still image from live or recorded feed and storing it into a workstation.                                                                                                                                                                                                                                                                                                                 |
| 38 | Replay facility with timeline control to display and play back recorded video for one or more cameras. Playback shall be possible on 1 or more cameras simultaneously for all cameras currently displayed in the Video Workspace.                                                                                                                                                                                                          |
| 39 | The VMS shall have ability to bookmark / add-to-favorites in both live and playback modes. Bookmarks shall be created, search, removed by the owner.                                                                                                                                                                                                                                                                                       |
| 40 | Digital zoom to enlarge portion of an image to provide superior zooming capability.                                                                                                                                                                                                                                                                                                                                                        |
| 41 | The VMS shall have ability to Start/Stop Recording on demand (manually).                                                                                                                                                                                                                                                                                                                                                                   |
| 42 | Option to view surrounding cameras: The system should enable operators to configure camera feed and based on group/subgroup details, its surrounding cameras should be automatically displayed on separate panes based on alarms.                                                                                                                                                                                                          |
| 43 | Evidence export feature: The system should allow users to export audio/video evidence in open format for internal investigation or to share authentic proof to public authorities and outside agencies. Alternatively, the bidder may provide the required player/software to run the exported video file if the VMS does not support to export in avi or another standard format.                                                         |
| 44 | The VMS shall provide an advanced search of recorded video. The search shall be based on recording time, camera and recording details. Wildcards shall be accepted for the Point ID, description, area, priority and value for alarm/event activated recordings. Smart (motion) Search: The feature should enable users to select area of interest on any given view of camera recording, and search for motion incidents within that area |
| 45 | The VMS should have onscreen process guidance/help menu & instruction                                                                                                                                                                                                                                                                                                                                                                      |
| 46 | The system should offer following playback controls                                                                                                                                                                                                                                                                                                                                                                                        |
|    | · Play/Pause                                                                                                                                                                                                                                                                                                                                                                                                                               |
|    | · Forward playback                                                                                                                                                                                                                                                                                                                                                                                                                         |
|    | · Reverse playback                                                                                                                                                                                                                                                                                                                                                                                                                         |
|    | · Frame forward                                                                                                                                                                                                                                                                                                                                                                                                                            |
|    | · Frame rewind                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 47 | <b>Evidence Printing:</b> Option to create and print a small surveillance report that includes image(s) and comments about recorded incident from command control system.                                                                                                                                                                                                                                                                  |
| 48 | The system should enable users to view different graphics to preconfigured displays.                                                                                                                                                                                                                                                                                                                                                       |
| 49 | The system/camera should offer options to set Brightness, Contrast, Sharpness etc.                                                                                                                                                                                                                                                                                                                                                         |
| 50 | The VMS/VA system should have in-built, configurable, basic motion detection analytic engine that efficiently                                                                                                                                                                                                                                                                                                                              |
|    | · Detects motion                                                                                                                                                                                                                                                                                                                                                                                                                           |
|    | · Virtual line                                                                                                                                                                                                                                                                                                                                                                                                                             |
|    | · Auto tracking / person annotations                                                                                                                                                                                                                                                                                                                                                                                                       |
|    | <b>The system should have event/alarm management module that allows generating, distributing, storing, tracking and reporting of incidents and events as they occur. The VMS shall have ability to:</b>                                                                                                                                                                                                                                    |
|    | · System should support latched alarm. i.e. Alarms once reported, requires correction to be removed from the system.                                                                                                                                                                                                                                                                                                                       |
|    | · Configure automatic/programmed responses based on priority and escalation level for specific event(s).                                                                                                                                                                                                                                                                                                                                   |
|    | · Send email and SMS notifications to respective users.                                                                                                                                                                                                                                                                                                                                                                                    |
|    | · Search and view list of triggered events based on source, priority, event type, date/time, etc.                                                                                                                                                                                                                                                                                                                                          |
|    | · Acknowledge events – Change status, key-in more information                                                                                                                                                                                                                                                                                                                                                                              |
|    | · Escalate event records to the next level of users or share event records with other users through command control.                                                                                                                                                                                                                                                                                                                       |

|            |                                                                                                                                                                                                                                              |                                                                           |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
|            | · Allow manual respond to triggered events including activating external hardware and transmitting I/O commands.                                                                                                                             |                                                                           |
|            | · Consolidated e-reports generation with archive video, images, text and other file attachments through command control                                                                                                                      |                                                                           |
| 51         | The VMS/ Command control system should provide interactive reporting interface with standard and user-defined custom reports and filtering options to:                                                                                       |                                                                           |
|            | · Retrieve audit trails - user activities, errors and system logs.                                                                                                                                                                           |                                                                           |
|            | · View list of hardware units and selected configuration options.                                                                                                                                                                            |                                                                           |
|            | · Storage usage report detailing the available and consumed storage for specific Recording Servers in the VMS                                                                                                                                |                                                                           |
| 58         | The system should have Inbuilt diagnostic utility that gathers several different functions of deployed hardware and software modules and attempts/assist to correct the problem in case of deviations from the established baselines occurs. |                                                                           |
| 59         | The facility should be there to extract & save the video footages / images on CD, DVD, USB, External Storage etc.                                                                                                                            |                                                                           |
| 60         | The system should continuously monitor the connectivity with camera even when not connected for live or recording. Upon any failures, system should raise as alarm.                                                                          |                                                                           |
| 61         | Various video analytics that shall be offered on identified cameras are: -                                                                                                                                                                   |                                                                           |
|            | a) Loitering /Vandalism around area under observation                                                                                                                                                                                        |                                                                           |
|            | b) Video Loss Alarm                                                                                                                                                                                                                          |                                                                           |
|            | c) People Head Counting or Crowd Recognition                                                                                                                                                                                                 |                                                                           |
|            | d) Camera Tampering/Camera ON/OFF video alarms                                                                                                                                                                                               |                                                                           |
|            | e) Image Masking- Privacy Protection Video Tracking of Person                                                                                                                                                                                |                                                                           |
|            | f) Video Tracking of Person/Object in field of view                                                                                                                                                                                          |                                                                           |
|            | g) Left/Abandoned Item Detection and Removed Item Detection                                                                                                                                                                                  |                                                                           |
|            | h) Virtual Fence/Perimeter Breach/ Entry —Exit in restricted zone                                                                                                                                                                            |                                                                           |
| <b>1.4</b> | <b>8 port Industrial switch</b>                                                                                                                                                                                                              |                                                                           |
| <b>S.n</b> | <b>Specification</b>                                                                                                                                                                                                                         |                                                                           |
| 1          | Switch Should Support 8 10/100BASE-T PoE, 2 SFP ports                                                                                                                                                                                        |                                                                           |
| 2          | switch should support Operating Temperature 0 to 60 °C                                                                                                                                                                                       |                                                                           |
| 3          | Switch Should Support Min. 20 Gbps Switching Capacity and Maximum 64 Byte, Packet Forwarding Rate is 14.88 MPPS, 8K MAC address table.                                                                                                       |                                                                           |
| 4          | Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and minimum 240W Power Budget.                                                                                                                                            |                                                                           |
| 5          | Switch Should Support IGMP Snooping v1, v2 and MLD snooping v1/v2                                                                                                                                                                            |                                                                           |
| 6          | Switch Should Support 4K VLAN ID's, Min 256 static VLAN                                                                                                                                                                                      |                                                                           |
| 7          | Switch Should Support Port Mirroring One to one/Many to One,                                                                                                                                                                                 |                                                                           |
| 8          | Switch should support Quality of Service (QoS), 802.1p, Strict, Weighted Round Robin (WRR), Bandwidth Control.                                                                                                                               |                                                                           |
| 9          | Switch Should Support IP interfaces, Static routing for inter-VLAN Communication                                                                                                                                                             |                                                                           |
| 10         | Switch should be supplied with the all-necessary components like Power supply, Power cord, Console Cable, Rack-mount kit, Installation Guide, etc. and necessary software image file to fulfil all above-mentioned feature set from day 1.   |                                                                           |
| <b>1.5</b> | <b>1 KVA UPS</b>                                                                                                                                                                                                                             |                                                                           |
| <b>S.n</b> | <b>Specification</b>                                                                                                                                                                                                                         |                                                                           |
| 1          | Capacity                                                                                                                                                                                                                                     | 1 KVA, 800 Watt (1Øinput/ 1Ø output)                                      |
| 2          | Topology                                                                                                                                                                                                                                     | True Online Double Conversion UPS Standalone UPS with single battery bank |

|     |                                                                   |                                                                                                                  |
|-----|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 3   | Technology                                                        | Microprocessor based, PWM with IGBT based, Phase neutral reversal protection                                     |
|     | <b>INPUT</b>                                                      |                                                                                                                  |
| 1   | Input Facility                                                    | 1Ø, 2-wire & Ground, (Phase & Neutral + Ground)                                                                  |
| 2   | Input Voltage Range                                               | 160 ~ 280 VAC (On 100% Load), 120~290 VAC (On 50% Load),                                                         |
| 3   | Input Frequency Range                                             | 45 ~55Hz, Autosensing                                                                                            |
| 4   | Input Power Factor                                                | ≥0.99                                                                                                            |
| 5   | THDI                                                              | ≤10%                                                                                                             |
|     | <b>OUTPUT</b>                                                     |                                                                                                                  |
| 1   | Power Factor                                                      | 0.8                                                                                                              |
| 2   | Nominal Output Voltage                                            | 220/230VAC                                                                                                       |
| 3   | Voltage regulation                                                | ± 1% static, ± 5% for Dynamic Load                                                                               |
| 4   | Nominal Frequency                                                 | 50Hz                                                                                                             |
| 5   | Waveform                                                          | Sine wave                                                                                                        |
| 6   | Crest factor                                                      | 0.125694444                                                                                                      |
| 7   | Total harmonic distortion (THDY)                                  | < 3% (linear load); <5% (nonlinear load)                                                                         |
| 8   | Output Short Circuit Protection                                   | Electronic, trip                                                                                                 |
| 9   | Transfer time                                                     | Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: < 4ms                                            |
| 10  | Maintenance/Manual Bypass                                         | Automatic & Manual                                                                                               |
| 11  | DC Ripple factor                                                  | ≤1%                                                                                                              |
| 12  | Efficiency                                                        | Overall (Ac to AC): > 92%                                                                                        |
| 13  | Inverter overload capability                                      | Upto 100% infinite                                                                                               |
|     |                                                                   | >100% ~ 110%: for 60 Secs;                                                                                       |
|     |                                                                   | >110% ~ 130%: for 10 Secs;                                                                                       |
|     |                                                                   | > 130%: upto 1 seconds                                                                                           |
|     | <b>BATTERY &amp; BATTERY BANK CHARGER</b>                         |                                                                                                                  |
| 1   | DC BUS voltage                                                    | 36 VDC                                                                                                           |
| 2   | Batteries Type                                                    | Sealed Maintenance Free, 12 V                                                                                    |
| 3   | Battery Make                                                      | Exide/Quanta                                                                                                     |
| 4   | Battery Back up                                                   | 1 hour on full load                                                                                              |
| 5   | Number of Battery Banks                                           | One or Two maximum                                                                                               |
| 6   | Required VAH                                                      | 1512                                                                                                             |
| 7   | Minimum Charger Rating                                            | The Charger should be able to deliver charging current (minimum) equivalent to 10% of Battery AH rating offered. |
| 8   | Battery re-charge time (After complete discharge) to 90% capacity | 8-10 Hours                                                                                                       |
| 9   | Cold Start                                                        | should be provided                                                                                               |
|     | <b>Environmental</b>                                              |                                                                                                                  |
| 1   | Operating Temperature                                             | 0-50 degree C                                                                                                    |
| 2   | Type of Cooling                                                   | Forced Air                                                                                                       |
| 1.6 | <b>24 port Central Switch</b>                                     |                                                                                                                  |
|     | <b>Specification</b>                                              |                                                                                                                  |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          | Architecture                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2          | Shall be 19" Rack Mountable Stackable or Integrated solution                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3          | Switch shall have 24 Nos. of 10/100/1000 Base-T POE+ Ports and 4 nos. 1/10G SFP+ ports support.                                                                                                                                                                                                                                                                                                                                                                      |
| 4          | Shall have one Console (RJ-45/Serial) Port                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5          | Shall have switching capacity of 128 Gbps                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6          | Shall have up to 95 million pps switching throughput                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7          | Shall support Stacking functionality                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 8          | Shall support minimum 370W POE+ budget and 4MB packet buffer                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>1.7</b> | <b>CCTV Pole</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1          | Mounting structure: Use minimum 5Mtr. High Cylindrical GI Pole (Class B) or suitable structure with 4.5 Mtr. Minimum vertical clearance under the CCTV Camera from the Road surface.                                                                                                                                                                                                                                                                                 |
| 2          | The mounting shall be capable of withstanding roadside vibrations at site of installation.                                                                                                                                                                                                                                                                                                                                                                           |
| 3          | It shall be provided with suitable walkway for maintenance access.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4          | The side interior and rear of enclosures are provided in maintenance free finish. All enclosure is flat and wipe clean.                                                                                                                                                                                                                                                                                                                                              |
| 5          | For Structural safety, structural safety certificate shall be provided from qualified structural engineers.                                                                                                                                                                                                                                                                                                                                                          |
| 6          | Wind Load: WL9 as per EN12966 to withstand high wind speeds and its own load - HT Steel Conforming to grade S355                                                                                                                                                                                                                                                                                                                                                     |
| 7          | Pole Base plate - Fe 410 Conforming to IS 226/IS 2062                                                                                                                                                                                                                                                                                                                                                                                                                |
| 8          | Foundation Bolt- EN 8 grade or better                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9          | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 provided with average coating thickness of 80 Micron or higher. The galvanizing shall be done in single dipping.                                                                                                                                                                                                                                                                                      |
| 10         | The pole shall be installed cast in- SITU RCC foundation on studs with nuts & washers and with adequate number of foundation bolts for greater rigidity basis the soil bearing test report of the actual site.                                                                                                                                                                                                                                                       |
| <b>1.8</b> | <b>ANPR Pole</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1          | The Conical/Polygonal pole and cantilever arm of 2 Meter should be designed to with stand maximum wind speed as per IS: 857 (Minimum 50 m/Sec). Certificate for the structural integrity of the pole shall be submitted to justify the pole dimensions.                                                                                                                                                                                                              |
| 2          | Pole shaft and cantilever have conical/polygonal cross section and shall be preferably continuously tapered with single longitudinal welding.                                                                                                                                                                                                                                                                                                                        |
| 3          | Pole shaft shall be provided with a grade flange plate of suitable thickness with provision of fixing suitable no. of foundation bolts. This base plate shall be filleted welded to the pole shaft at two locations i.e., from inside & outside.                                                                                                                                                                                                                     |
| 4          | Conical/ Polygonal pole shall have approximately 500 MM door opening length at the elevation of 500 mm from base plate. The door shall be vandal resistant and shall be weatherproof to ensuresafety of electrical connections inside the pole. The door shall be flush fit with locking facility. The pole shall be additionally reinforced with welded steel section, so that the section at door is unaffected and undue bucking of the cut section is prevented. |
| 5          | <b>Material of construction shall be:</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| A          | Conical/ Polygonal pole shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 3 MM                                                                                                                                                                                                                                                                                                                                                               |
| B          | Conical/Polygonal cantilever arm shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 2.5 MM                                                                                                                                                                                                                                                                                                                                                    |
| C          | Pole base plate - Fe 410 Conforming to IS 226/IS 2062 with minimum thickness of 16 MM                                                                                                                                                                                                                                                                                                                                                                                |
| D          | Pole foundation Bolt- EN 8 grade, GI                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6          | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 slandered with average coating thickness of 86 Micron. The galvanizing shall be done in single dipping.                                                                                                                                                                                                                                                                                               |

|             |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7           | The pole shall be installed on a precast or cast in- SITU RCC foundation on studs with nuts & washers and with a set of four foundation bolt for greater rigidity basis the soil bearing test report of the actual site.             |                                                                                                                                                                                                                                                                                                                                                              |
| <b>1.9</b>  | <b>Double Jacket cat6 cable</b>                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
| <b>S.n</b>  | <b>Specification</b>                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                              |
| 1           | 4 Pair Cable with integral cross -member pair separator for uniform characteristic impedance.                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                              |
| 2           | Category 6 Unshielded Twisted 4 Pair 100 $\Omega$ cable shall be compliant with ANSI/ TIA/ EIA-568-C.2- 1/ ROHS Additional ISO/ IEC 11801 2ndEd. Transmission Performance Specification for 4 Pair 100 $\Omega$ , Category 6 Cabling |                                                                                                                                                                                                                                                                                                                                                              |
| 3           | Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, UTP cable jacket.                                                                              |                                                                                                                                                                                                                                                                                                                                                              |
| 4           | Conductor: Solid Copper                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                              |
| 5           | Conductor Diameter: 0.574, $\pm$ 0.01mm (23AWG)                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
| 6           | Inner Jacket: LSZH/ PE/ PVC                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                              |
| 7           | Outer Jacket: PE –Black, Anti-Rodent, LSZH/ PE/ PVC                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                              |
| 8           | Max Temperature: -10°C to +60°C                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
| 9           | Mechanical Test                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
| 10          | Should have Pulling force more than 10 Kg.                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                              |
| 11          | Electrical Test                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
| 12          | Conductor Resistance: <9.38 $\Omega$ /100m                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                              |
| 13          | Resistance Unbalance 5% Max                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                              |
| 14          | Mutual Capacitance: < 5.6nF/100m                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                              |
| 15          | Capacitance Unbalance: 330pF/100m.                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                              |
| 16          | Characteristic Impedance: 100 +15 $\Omega$ conductor                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                              |
| <b>1.10</b> | <b>Outdoor JB</b>                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                              |
| <b>S.n</b>  | <b>Parameter</b>                                                                                                                                                                                                                     | <b>Min. Specification</b>                                                                                                                                                                                                                                                                                                                                    |
| 1           | Size                                                                                                                                                                                                                                 | Suitable size as per site requirements to house the field equipment.                                                                                                                                                                                                                                                                                         |
| 2           | Cabinet Material                                                                                                                                                                                                                     | GI with powder coated (Antirust coating)                                                                                                                                                                                                                                                                                                                     |
| 3           | Material Thickness                                                                                                                                                                                                                   | Min 1.2 mm                                                                                                                                                                                                                                                                                                                                                   |
| 4           | Number of Locks                                                                                                                                                                                                                      | Three Point Lock                                                                                                                                                                                                                                                                                                                                             |
| 5           | Protection                                                                                                                                                                                                                           | IP 55, Junction Box design should ensure to keep the temperature within suitable operating range for equipment's and should also avoid intentional water splash and dust intake. With built-in redundant fan and filter assembly inherent in the design. Junction Box design should ensure to keep the Operating temperature range of 10° C to 50° C.        |
| 6           | Mounting                                                                                                                                                                                                                             | To be mounted on a Base stand made up of powder coated MS Angle Profile with minimum height of 600 MM and should be covered from all sides with GI/MS powder coated sheet of minimum 1.2 MM thickness. The height of the stand to be selected based on the surface gradient to ensure that in case of waterlogging the logged water should not enter the JB. |
| 7           | Cabling                                                                                                                                                                                                                              | All cabling to be brought from the bottom through double compression glands to ensure that the IP rating is not compromised.                                                                                                                                                                                                                                 |
| 8           | Form Factor                                                                                                                                                                                                                          | Rack Mount/DIN Rail                                                                                                                                                                                                                                                                                                                                          |
| 9           | Other Features                                                                                                                                                                                                                       | Rain Canopy, Cable entry with glands, proper earthing and Fans/any other accessories as required for operation of equipment's within junction box.                                                                                                                                                                                                           |

|                           |                                                   |                                                                                                                                                                                                    |
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| 10                        | Additional                                        | Pocket to keep papers/file on inner side of the door LED light with limit switch to switch on the light once door is open. Additionally, a power off switch also to be available on the LED light. |
| <b>1.11 Network SPD</b>   |                                                   |                                                                                                                                                                                                    |
| <b>S.n</b>                | <b>Parameter</b>                                  | <b>Min. Specification</b>                                                                                                                                                                          |
| 1                         | Connection Type                                   | Series connection                                                                                                                                                                                  |
| 2                         | Application Type                                  | 10/100/1000 Mbps LAN                                                                                                                                                                               |
| 3                         | Transmission Speed                                | 1 Gbps                                                                                                                                                                                             |
| 4                         | Application                                       | Secondary 8 wire category 6                                                                                                                                                                        |
| 5                         | Connector                                         | RJ 45                                                                                                                                                                                              |
| 6                         | Nominal Surge Current                             | Core to Core: 350 A (8/20 $\mu$ s)<br>Core to Ground: 2 KA (8/20 $\mu$ s)                                                                                                                          |
| 7                         | Pulse discharge current                           | 1 kA                                                                                                                                                                                               |
| 8                         | Maximum Continuous                                | $\pm 5$ V DC ( $\pm 57$ V DC / PoE+)                                                                                                                                                               |
| 9                         | Enclosure                                         | IP20                                                                                                                                                                                               |
| 10                        | Temperature (Ambient)                             | -10°C to 55 °C or above                                                                                                                                                                            |
| 11                        | Voltage Protection level                          | Core – core $\leq 20$ V<br>Core – Earth $\leq 700$ V                                                                                                                                               |
| 12                        | SPD Compliance                                    | IEC 61643-21 or equivalent BIS                                                                                                                                                                     |
| 13                        | Approvals                                         | CU, UL Listed or equivalent BIS                                                                                                                                                                    |
| <b>1.12 Power SPD</b>     |                                                   |                                                                                                                                                                                                    |
| <b>S.n</b>                | <b>Parameter</b>                                  | <b>Specification</b>                                                                                                                                                                               |
| 1                         | IEC test Classification                           | II / T2 or BIS Equivalent                                                                                                                                                                          |
| 2                         | Technology                                        | L-N: MOV Technology<br>& N-PE: GDT Technology                                                                                                                                                      |
| 3                         | Pluggability                                      | Pluggable for Safe and Easy Maintenance and have provision of testing respective plugs for preventive periodic health monitoring.                                                                  |
| 4                         | Nominal Voltage Un                                | 240 / 415 V AC (TN-S / TT)                                                                                                                                                                         |
| 5                         | Maximum Continuous Operating Voltage              | 335 V AC                                                                                                                                                                                           |
| 6                         | Nominal Discharge Current                         | 20 kA                                                                                                                                                                                              |
| 7                         | Maximum Discharge Current                         | 40 kA                                                                                                                                                                                              |
| 8                         | Short Circuit Current rating ISCCR                | 25 kA                                                                                                                                                                                              |
| 9                         | Voltage Protection Level Up (L-N)                 | $\leq 1.5$ kV                                                                                                                                                                                      |
| 10                        | Temporary Over Voltage UT (L-N)                   | 415 V AC (5s / Withstand Mode) or better                                                                                                                                                           |
| 11                        | Temporary Over Voltage UT (N-PE)                  | 1200 V AC (200ms / Withstand Mode) or better                                                                                                                                                       |
| 12                        | Response time                                     | L-N: $\leq 25$ ns<br>N-PE: $\leq 100$ ns                                                                                                                                                           |
| 13                        | Mounting                                          | DIN Rail                                                                                                                                                                                           |
| <b>1.13 ANPR Software</b> |                                                   |                                                                                                                                                                                                    |
| <b>S.n</b>                | <b>Functional requirement</b>                     |                                                                                                                                                                                                    |
| 1                         | <b>Vehicle Detection and Video Capture Module</b> |                                                                                                                                                                                                    |

|          |                                                                                                                                                                                                                                                                                                                           |
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| A        | The System should automatically detect a vehicle in the camera view using video detection and activate license plate recognition. Suitable external IR Illuminator with Eye Safety test report/ equivalent certification should be used in conjunction with ANPR camera for detection of number plates during night-time. |
| <b>2</b> | <b>License Plate Detection</b>                                                                                                                                                                                                                                                                                            |
| A        | The System shall automatically detect the license plate in the captured video feed in real-time.                                                                                                                                                                                                                          |
| B        | The system shall perform OCR (optical character recognition) of the license plate characters (English alpha-numeric characters in standard fonts).                                                                                                                                                                        |
| C        | The System shall store JPEG image of vehicle and license plate and enter the license plate number into Postgre SQL database along with date time stamp and site location details.                                                                                                                                         |
| D        | System should be able to detect and recognize the English alpha numeric License plate in standard fonts and formats of all vehicles including cars, HCV, and LCV.                                                                                                                                                         |
| E        | The system should be able to process and read number plates of vehicles with speed of 180 km/hr and above.                                                                                                                                                                                                                |
| F        | The system shall be robust to variation in License Plates in terms of font, size, contrast and colour and should work with good accuracy.                                                                                                                                                                                 |
| G        | The system should do processing locally on the LPU installed at the ANPR camera location/ junction, to avoid any time lag and performance issue due to network disconnection, bandwidth constraints, etc.                                                                                                                 |
| <b>3</b> | <b>Colour Detection</b>                                                                                                                                                                                                                                                                                                   |
| A        | The system shall detect the colour of all vehicles in the camera view during daytime and label them as per the predefined list of configured system colours. The system will store the colour information of each vehicle along with the license plate for each transaction in the database.                              |
| B        | The system shall have options to search historical records for post event analysis by the vehicle colour or the vehicle colour with license plate and date time combinations.                                                                                                                                             |
| <b>4</b> | <b>Alert Generation</b>                                                                                                                                                                                                                                                                                                   |
| A        | The system should have option to input certain license plates according to the hot listed categories.                                                                                                                                                                                                                     |
| B        | The system should be able to generate automatic alarms to alert the control room personnel for further action, in the event of detection of any vehicle falling in the Hot listed categories.                                                                                                                             |
| <b>5</b> | <b>Vehicle Log</b>                                                                                                                                                                                                                                                                                                        |
| A        | The system shall enable easy and quick retrieval of snapshots, video and other data for post incident analysis and investigations.                                                                                                                                                                                        |
| B        | The system should provide advanced and smart searching facility of License Plates. There should be an option of searching number plates almost matching with the specific number entered (up to 1- and 2- character distance).                                                                                            |
| <b>6</b> | <b>Vehicle Make Detection Module</b>                                                                                                                                                                                                                                                                                      |
| A        | System should be able to identify the make of the vehicle coming in the field of view of the camera with good accuracy.                                                                                                                                                                                                   |
| <b>7</b> | <b>Vehicle Classification module (Optional)</b>                                                                                                                                                                                                                                                                           |
| A        | System should be able to classify the vehicle into LMV, HCV and 2-wheelers.                                                                                                                                                                                                                                               |
| <b>8</b> | <b>Central Management</b>                                                                                                                                                                                                                                                                                                 |
| A        | The Central Management Module shall run on the ANPRS Central Server in control booth. It should be possible to view records and edit hotlists from the Central Server.                                                                                                                                                    |
| B        | The system should have reading accuracy of minimum 90% on vehicles and above which are visible by human eye for English alphanumeric number plates.                                                                                                                                                                       |
| C        | The proposed system should have the capability to transfer the data to Central Command Centre through proper encryption in real time.                                                                                                                                                                                     |
| D        | System Should have capability to generate alerts / alarm If any vehicle changes its designated route.                                                                                                                                                                                                                     |

|             |                                             |                                                                                   |
|-------------|---------------------------------------------|-----------------------------------------------------------------------------------|
| <b>1.14</b> | <b>Storage</b>                              |                                                                                   |
| <b>S.n</b>  | <b>Parameter</b>                            | <b>Specification</b>                                                              |
| 1           | Form Factor                                 | Rack 2U or higher                                                                 |
| 2           | Controller                                  | The proposed NAS should be configured with minimum single controller/Processor.   |
| 3           | Processor                                   | Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor or better                   |
| 4           | Cache/Memory                                | NAS must be with minimum 64 GB ECC RAM and upgrade up to 128 GB or higher.        |
| 5           | Internal storage capacity                   | 1. Support for SAS/SATAIII 3.5'' HDD or SSD.                                      |
|             |                                             | 2. Offered NAS solution must support at-least 60 bay 7.2K RPM HDD slot in RAID 5. |
| 6           | Front/Back-end ports                        | 1. Minimum 2 x 1G Ethernet Ports.                                                 |
|             |                                             | 2. Minimum 2 x 10G SFP+ Ports                                                     |
|             |                                             | 3. Two or more USB 3.0 Ports.                                                     |
| 7           | RAID                                        | Must Support for RAID Levels: 0, 1, 5, 6                                          |
| 8           | Authentication Support                      | NAS must support Windows AD authentication.                                       |
| 9           | Network Client Type Support                 | Windows and Linux.                                                                |
| 10          | Management                                  | Must support GUI.                                                                 |
| 11          | Cables, Driver's connectors and accessories | Must come with require accessories, cable and connector from day one.             |
| 12          | Power Supply                                | Dual Redundant Hot-Swappable Power Supplies                                       |
| <b>1.15</b> | <b>Air Conditioner (AC)</b>                 |                                                                                   |
| <b>S.n</b>  | <b>Parameter</b>                            | <b>Specification</b>                                                              |
| 1           | Compressor                                  | Rotary or better                                                                  |
| 2           | Dehumidification                            | Yes                                                                               |
| 3           | Remote Control                              | Yes                                                                               |
| 4           | Indoor Temperature Indicator                | Yes                                                                               |
| 5           | Turbo Mode or equivalent                    | Yes                                                                               |
| 6           | Auto Air Swing                              | Yes                                                                               |
| 7           | Active Carbon Filter                        | Yes                                                                               |
| 8           | Sleep Mode                                  | Yes                                                                               |
| 9           | Capacity                                    | 2 Ton                                                                             |
| 10          | BEE Rating                                  | 5 star                                                                            |
| 11          | AC Type                                     | Split                                                                             |
| 12          | Binding Type                                | Copper                                                                            |
| 13          | Warranty                                    | 5 years or more                                                                   |
| <b>1.16</b> | <b>Television (TV) 43 Inch</b>              |                                                                                   |
| <b>S.n</b>  | <b>Features</b>                             | <b>Specification</b>                                                              |
| 1           | Display Size                                | 42 inch or above                                                                  |
| 2           | Native Resolution                           | 3840 x 2160 (UHD) 4k or better                                                    |
| 3           | Brightness                                  | Minimum 300 cd/m2 or above                                                        |
| 4           | Contrast Ratio (Native)                     | Minimum 1100:1 or better                                                          |
| 5           | Viewing Angle                               | 178 * 178                                                                         |
| 6           | Refresh Rate                                | 60 Hz and above                                                                   |
| 7           | Input Ports                                 | HDMI-2, USB 2.0, RJ45-1                                                           |

|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                    |                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8                                                                                                                                                                                                                                                | Output Ports                                                                                                                                                                                       | Digital audio out/ Headphone out                                                                                                                                                  |
| 9                                                                                                                                                                                                                                                | Wi-Fi                                                                                                                                                                                              | Built-in Wifi required                                                                                                                                                            |
| 10                                                                                                                                                                                                                                               | Audio                                                                                                                                                                                              | 20W (10W * 2)                                                                                                                                                                     |
| 11                                                                                                                                                                                                                                               | Certificates                                                                                                                                                                                       | UL/CE/CB & BIS, RoHS                                                                                                                                                              |
| 12                                                                                                                                                                                                                                               | Accessories                                                                                                                                                                                        | Wall mount, Table stand, Remote and standard cables with complete Installation                                                                                                    |
| 13                                                                                                                                                                                                                                               | OEM Warranty                                                                                                                                                                                       | 3 Years                                                                                                                                                                           |
| 14                                                                                                                                                                                                                                               | Operating System in case of smart TV                                                                                                                                                               | Web OS/ Andriod / Tizen                                                                                                                                                           |
| 15                                                                                                                                                                                                                                               | OEM Manufacturing date                                                                                                                                                                             | OEM Manufacturing 2022 or better                                                                                                                                                  |
|                                                                                                                                                                                                                                                  | <b>Local Storage</b>                                                                                                                                                                               |                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                  | <b>SD card</b>                                                                                                                                                                                     | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. |
|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                    | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording.                                                        |
| <b><u>G-Functional requirement</u></b>                                                                                                                                                                                                           |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| <b>G 1-Video analytics</b>                                                                                                                                                                                                                       |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 1. Surveillance system shall have the capability to deploy intelligent video analytics software on any of the selected cameras.                                                                                                                  |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 2. This software shall have the capability to provide various alarms & triggers.                                                                                                                                                                 |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 3. The software shall essentially evolve to automate the suspect activity capture and escalation; eliminate the need of human observation of video on a 24x7 basis.                                                                              |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 4. Analytics software shall bring significant benefit to review the incidences and look for suspicious activity in both live video feeds and recorded footages.                                                                                  |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 5. The software shall have filters to distinguish between humans, animals, vehicles or objects.                                                                                                                                                  |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 6. The video analytics software shall be implemented at the server level in central datacenter compatible with windows server OS or Linux for highest performance and reliability.                                                               |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 7. Various video analytics that shall be offered on identified cameras are:-                                                                                                                                                                     |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| a) Loitering /Vandalism around area under observation                                                                                                                                                                                            |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| b) Video Loss Alarm                                                                                                                                                                                                                              |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| c) People Head Counting or Crowd Recognition                                                                                                                                                                                                     |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| d) Camera Tampering/Camera ON/OFF video alarms                                                                                                                                                                                                   |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| e) Image Masking- Privacy Protection Video Tracking of Person                                                                                                                                                                                    |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| f) Video Tracking of Person/Object in field of view                                                                                                                                                                                              |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| g) Left/Abandoned Item Detection and Removed Item Detection                                                                                                                                                                                      |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| h) Virtual Fence/Perimeter Breach/ Entry –Exit in restricted zone                                                                                                                                                                                |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| <b>G 2-Automatic number plate recognition system</b>                                                                                                                                                                                             |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 1. The ANPR System shall enable monitoring of vehicle flow at strategic locations.                                                                                                                                                               |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 2. The system shall support real-time detection of vehicles at the deployed locations, reading its number plate, database lookup from central server and triggering of alarms / alerts based on the vehicle status as specified in the database. |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| <b>G3 - Storage</b>                                                                                                                                                                                                                              |                                                                                                                                                                                                    |                                                                                                                                                                                   |
| 1                                                                                                                                                                                                                                                | Complete system with appropriate accessories & fixtures for recording, storage of footages with a provision of retention for minimum 30 days.                                                      |                                                                                                                                                                                   |
| 2                                                                                                                                                                                                                                                | Ensure ability of the system to view and record during day & night and also to capture the live video stream, store, retrieve and analyze video images with functional specifications specified in |                                                                                                                                                                                   |

|                                                                                                                                                                                                                                 |                                                                                                          |                                                                  |                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|
|                                                                                                                                                                                                                                 | this document.                                                                                           |                                                                  |                                                  |
| 3                                                                                                                                                                                                                               | External NL-SAS storage with RAID 5 configuration.                                                       |                                                                  |                                                  |
| 4                                                                                                                                                                                                                               | Recording resolution FULL HD@ 30 FPS.                                                                    |                                                                  |                                                  |
| 5                                                                                                                                                                                                                               | Flagged data may be <b>Approx 5% of recorded data</b> . Flagged data can be retain for at least 90 days. |                                                                  |                                                  |
| <b>G4- General</b>                                                                                                                                                                                                              |                                                                                                          |                                                                  |                                                  |
| Ensure provision of latest version of licensed software and compatibility with 3rd party components / solutions for seamless integration.                                                                                       |                                                                                                          |                                                                  |                                                  |
| <b><u>H –Service Level Agreement (SLA)</u></b>                                                                                                                                                                                  |                                                                                                          |                                                                  |                                                  |
| As part of this RFP, Bidder shall ensure that redundancy and fault tolerance is considered at the components level in the actual deployment.                                                                                    |                                                                                                          |                                                                  |                                                  |
| The following table details out service level agreement for service availability of components.                                                                                                                                 |                                                                                                          |                                                                  |                                                  |
| <b>System availability</b> (Up time): System availability shall be calculated as $[100\%-(\text{Downtime} / \text{Total time}) *100]$ .                                                                                         |                                                                                                          |                                                                  |                                                  |
| <b>Parameter</b>                                                                                                                                                                                                                | <b>SLA Target</b>                                                                                        | <b>Penalty</b>                                                   | <b>Measurement Tool/Method</b>                   |
| Servers, Cameras, networking equipments, networking & associated Software and Hardware mentioned in BOQ or any other peripherals components.                                                                                    | >= 99.5% uptime                                                                                          | · If uptime is Less than 99.5% and Greater than or equal to 98%. | Measured 24X7X365 (measured/ calculated monthly) |
|                                                                                                                                                                                                                                 |                                                                                                          | Rs. 1000 / Hour Penalty Applicable.                              |                                                  |
|                                                                                                                                                                                                                                 |                                                                                                          | · If uptime is Less than 98.0% and Greater than or equal to 95%. |                                                  |
|                                                                                                                                                                                                                                 |                                                                                                          | Rs. 2000 / Hour Penalty Applicable.                              |                                                  |
|                                                                                                                                                                                                                                 |                                                                                                          | · If uptime is Less than 95.0%                                   |                                                  |
| Rs. 5000 / Hour Penalty Applicable.                                                                                                                                                                                             |                                                                                                          |                                                                  |                                                  |
| <b>Note: Penalty shall be deducted from the Security Deposit.</b>                                                                                                                                                               |                                                                                                          |                                                                  |                                                  |
| <b><u>I-Command Control Centre</u></b>                                                                                                                                                                                          |                                                                                                          |                                                                  |                                                  |
| 1. All camera feeds should be available for viewing by Police Personnel at any point of time.                                                                                                                                   |                                                                                                          |                                                                  |                                                  |
| 2. Command Control Center should have simultaneous viewing capability for about 10% of all cameras.                                                                                                                             |                                                                                                          |                                                                  |                                                  |
| 3. The Command Center would be equipped with state of-the-art equipment's to support monitoring and analysis of video feeds.                                                                                                    |                                                                                                          |                                                                  |                                                  |
| 4. For the purpose of common viewing of the cameras, video-walls/TV screens will be installed in the office.                                                                                                                    |                                                                                                          |                                                                  |                                                  |
| <b><u>J-Training and Capacity Building</u></b>                                                                                                                                                                                  |                                                                                                          |                                                                  |                                                  |
| 1. 5 days hands on experiences on Video Management System (VMS) and Analytics for 10 persons.                                                                                                                                   |                                                                                                          |                                                                  |                                                  |
| 2. Preparation of Training Material for operation, upkeep and security related subjects for technical, executive and supervisory staff.                                                                                         |                                                                                                          |                                                                  |                                                  |
| 3. Preparation of Detailed Standard Operating Procedures (SOP) for police personal to be provided in consultation with head of security.                                                                                        |                                                                                                          |                                                                  |                                                  |
| <b><u>K -Operations and Maintenance</u></b>                                                                                                                                                                                     |                                                                                                          |                                                                  |                                                  |
| 1. Bidder shall also be responsible for the maintenance and management of entire systems, solutions, application deployed as part of this RFP for a period of 5 year from the Go-Live date in an efficient and effective manner |                                                                                                          |                                                                  |                                                  |
| 2. Deploying manpower (minimum 2 persons) for solution maintenance and monitoring support which includes change request management, bug tracking and resolution, production support, performing version and patch updates.      |                                                                                                          |                                                                  |                                                  |
| 3. Monitoring of all Equipment, display facilities, furnishing & finishing etc.which shall be monitoring                                                                                                                        |                                                                                                          |                                                                  |                                                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| the CCTV system.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. Annual technical support for all hardware and software components for the O & M period.                                                                                                                                                                                                                                                                                                                                         |
| 5. Preventive, repair maintenance and replacement of hardware and software components as applicable under the warranty and AMC services during the contract period.                                                                                                                                                                                                                                                                |
| 6. Recurring refresher trainings for the users and Change Management activities.                                                                                                                                                                                                                                                                                                                                                   |
| 7. Preventive, repair maintenance and replacement of non-ICT components as applicable under the warranty and AMC services during the contract period.                                                                                                                                                                                                                                                                              |
| 8. Overall maintenance of the CCTV solution and continuity of Operations as per SLAs.                                                                                                                                                                                                                                                                                                                                              |
| 9. Submit Quarterly reports as desired by the department.                                                                                                                                                                                                                                                                                                                                                                          |
| 10. Warranty - 5 years                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b><u>L-Other Terms &amp; Conditions</u></b>                                                                                                                                                                                                                                                                                                                                                                                       |
| 1. Provisioning of required network bandwidth, Internet bandwidth and connectivity at various locations to connect with CCTV Solution shall be done by Bidder.                                                                                                                                                                                                                                                                     |
| 2. The maintenance phase will be for a period of 5 (five) years after Go-Live.                                                                                                                                                                                                                                                                                                                                                     |
| 3. The successful bidder shall supply, commission and integrate the underlying infrastructure required for running the applications and managing the entire system.                                                                                                                                                                                                                                                                |
| 4. The bidder as the part of overall solution should consider latest & innovative technologies and propose the most optimal solution. The solution implemented for this project needs to be highly secure, considering that it is intended to handle sensitive data.                                                                                                                                                               |
| 5. Bidder shall be responsible for obtaining all permissions and approvals necessary to install the systems components as per the design.                                                                                                                                                                                                                                                                                          |
| 6. During project period, in the event of any damage to CCTV cameras due to accident or due to any other unforeseen circumstances, the bidder shall repair/replace the camera within 15 days of the said incident. Failure to comply with the time period shall attract penalty as mentioned in SLA.                                                                                                                               |
| 7. Shelf-life of Hardware should be min. 5 Years.                                                                                                                                                                                                                                                                                                                                                                                  |
| 8. Manufacturing Date of Hardware Products supplied should be in Year 2022 or later.                                                                                                                                                                                                                                                                                                                                               |
| 9. The bidder should have successfully executed and implemented at least one supply order of <b>similar CCTV Project worth of</b> minimum 50% of the Quoted Bid Price, in Central or State Govt/ Govt Undertaking /PSU/ International organizations/Autonomous - Semi Autonomous bodies of Central/State Government in last four years(i.e., 2020-2021, 2021-2022 ,2022-2023 and 2023-2024). Copy of PO must be enclosed as proof. |

